DRAFT DEVELOPMENT FEES, INFRASTRUCTURE IMPROVEMENTS PLAN, AND LAND USE ASSUMPTIONS

Prepared for:

Town of Gilbert, Arizona

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EXECUTIVE SUMMARY

Development fees are one-time payments used to construct system improvements needed to accommodate new development. The fee represents future development's proportionate share of infrastructure costs. Development fees may be used for capital improvements or debt service for growth-related infrastructure. In contrast to general taxes, development fees may not be used for operations, maintenance, replacement or correcting existing deficiencies.

As documented in this report, the Town of Gilbert has complied with Arizona's development fee enabling legislation and applicable legal precedents. Development fees are proportionate and reasonably related to the capital improvement demands of new development. Specific costs have been identified using local data and current dollars. With input from Town staff, TischlerBise determined demand indicators for each type of infrastructure and calculated proportionate share factors to allocate costs by type of development. This report documents the formulas and input variables used to calculate the development fees for each type of public facility. Development fee methodologies also identify the extent to which new development is entitled to various types of credits to avoid potential double payment of growth-related capital costs.

Under authority of Arizona Revised Statutes (ARS) 9-463.05, municipalities in Arizona may assess development fees to offset infrastructure costs to a municipality associated with providing necessary public services to development. The development fees must be based on an Infrastructure Improvements Plan (IIP). This update of the IIP and development fees includes the following necessary public services:

- Parks and Recreation Facilities
- General Government and Libraries
- Traffic Signals
- Public Safety (Police and Fire Facilities)
- Water Facilities
- Wastewater Facilities

Conceptual Development Fee Calculation

In contrast to project-level improvements, development fees fund growth-related infrastructure that will benefit multiple development projects, or the entire jurisdiction (usually referred to as system improvements). The first step is to determine an appropriate demand indicator for the particular type of infrastructure. The demand indicator measures the number of service units for each unit of development. For example, an appropriate indicator of the demand for parks is population growth and the increase in population can be estimated from the average number of persons per housing unit. The second step in the development fee formula is to determine infrastructure units per demand unit, typically called Level-Of-Service (LOS) standards. In keeping with the park example, a common LOS standard is improved park acreage per thousand people. The third step in the development fee formula is the cost of various infrastructure units. To complete the park example, this part of the formula would establish the cost per acre for land acquisition and/or park improvements.

General Methodologies

There are three general methods for calculating development fees. The choice of a particular method depends primarily on the timing of infrastructure construction (past, concurrent, or future) and service characteristics of the facility type being addressed. Each method has advantages and disadvantages in a particular situation, and can be used simultaneously for different cost components.

Reduced to its simplest terms, the process of calculating development impact fees involves two main steps: (1) determining the cost of development-related capital improvements and (2) allocating those costs equitably to various types of development. In practice, though, the calculation of development fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities within the designated service area. The following paragraphs discuss three basic methods for calculating development fees and how those methods can be applied.

Cost Recovery (past improvements)

The rationale for recoupment, often called cost recovery, is that new development is paying for its share of the useful life and remaining capacity of facilities already built, or land already purchased, from which new growth will benefit. This methodology is often used for utility systems that must provide adequate capacity before new development can take place. Also, ARS 9-463.05.R allows municipalities to continue collecting development fees pledged to repay debt obligations if the fee revenue is used solely for principal and interest payments.

Incremental Expansion (concurrent improvements)

The incremental expansion method documents current level-of-service (LOS) standards for each type of public facility, using both quantitative and qualitative measures. By definition there are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share to maintain current standards for growth-related infrastructure. Fee revenue will be used to expand or provide additional facilities, as needed to keep pace with new development.

Plan-Based Fee (future improvements)

The plan-based method allocates costs for a specified set of improvements to a specified amount of service units. Improvements are typically identified in a facility master plan and development potential is identified by the land use assumptions. There are two options for determining the cost per service unit: 1) total cost of a public facility can be divided by total demand units (average cost approach), or 2) the growth-share of the public facility cost can be divided by the net increase in demand units over the planning timeframe (marginal cost approach).

Credits

Regardless of the methodology, a consideration of "credits" is integral to the development of a legally defensible development fee. There are two types of "credits" that should be addressed in development fee studies and ordinances. The first is a revenue credit due to possible double payment situations, which could occur when other revenues may contribute to the capital costs of infrastructure covered by the development fee. This type of credit is integrated into the fee calculation, thus reducing the fee amount. The second is a site-specific credit or developer reimbursement for dedication of land or construction of system improvements. This type of credit is addressed in the administration and implementation of the development fee program.

Figure 1 summarizes the methods and cost components for each type of infrastructure included in Gilbert's IIP and development fee update. When cost recovery is combined with other methods, infrastructure with growth-related debt service is not counted in existing levels of service.

Figure 1 – Development Fee Methods and Cost Components

Type of Fee	*Cost Recovery (past)*	*Incremental Expansion (present)*	*Plan-Based (future)*
1 Parks and Recreation	Debt Service	Park Improvements, Pools, Trails, Community Centers	
2 General Government & Libraries	Debt Service		
3 Traffic Signals			Traffic Signals
4 Public Safety	Debt Service	Police Vehicles and Communications Equipment	Fire Stations and Apparatus
5 Water			Water Resources, Treatment, Storage, and Major Lines
6 Sewer	Neely		Wastewater Collection, Treatment (Greenfield), and Recharge

To obtain the total development fee for a residential unit, utility fees (shown below in Figure 4) must be added to the non-utility fees (shown below in Figure 3). Assuming a 0.75-inch meter for a single residential unit, current and proposed total development fees, by service area, are shown in Figure 2. In Gilbert, only wastewater fees vary by geographic area. All other development fees are town-wide. Proposed fees for a single residential unit increase 9-15 percent and proposed fees per dwelling in a residential structure with two or more units are 17-23 percent higher. The latter are commonly known as duplexes, apartments, or multi-family housing.

Figure 2 – Current and Proposed Total Fees per Dwelling Unit

Area	*Current*	*Proposed*	*$ Change*	*% Change*
Single Unit				
Neely (north)	$18,532	$20,130	$1,598	9%
Greenfield (south)	$18,532	$21,224	$2,692	15%
Two or More Units per Structure				
Neely (north)	$11,818	$13,802	$1,984	17%
Greenfield (south)	$11,818	$14,554	$2,736	23%

Non-utility development fees are summarized in Figure 3, including current and proposed fees for each type of infrastructure. Proposed non-utility fees are 41% higher for a single residential unit, but only 9%

higher per dwelling in a residential structure with two or more units. Additional details on the proposed residential categories may be found in Appendix C (land use assumptions).

Fees for nonresidential development, per square foot of floor area, are shown in the table below. Proposed fees decrease 10% for industrial development and commercial development, with a 33% increase for office/other services. Proposed non-utility fees for nonresidential development range from $1.24 to $2.31 per square foot.

Figure 3 – Current and Proposed Non-Utility Fees

Proposed Fees	*Parks and Recreation*	*General Government*	*Traffic Signals*	*Public Safety*	*TOTAL*
Residential (per housing unit)					
Single Unit	$4,640	$1,200	$450	$2,519	$8,809
2+ Units per Structure	$3,190	$800	$296	$1,732	$6,018
Nonresidential (per square foot of building)					
Industrial	$0	$0.19	$0.47	$0.58	$1.24
Commercial	$0	$0.30	$1.08	$0.93	$2.31
Office & Other Services	$0	$0.30	$0.65	$1.09	$2.04

Current Fees	*Parks and Recreation*	*General Government*	*Traffic Signals*	*Public Safety*	*TOTAL*
Residential (per housing unit)					
Single Unit	$4,030	$383	$423	$1,433	$6,269
2+ Units per Structure	$3,465	$329	$297	$1,433	$5,524
Nonresidential (per square foot of building)					
Industrial	$0	$0.204	$0.405	$0.765	$1.374
Commercial	$0	$0.204	$1.593	$0.765	$2.562
Office & Other Services	$0	$0.204	$0.570	$0.765	$1.539

Increase or (Decrease)	*Parks and Recreation*	*General Government*	*Traffic Signals*	*Public Safety*	*TOTAL*	*Percent Change*
Residential (per housing unit)						
Single Unit	$610	$817	$27	$1,086	$2,540	41%
2+ Units per Structure	($275)	$471	($1)	$299	$494	9%
Nonresidential (per square foot of building)						
Industrial	$0	($0.014)	$0.065	($0.185)	($0.134)	-10%
Commercial	$0	$0.096	($0.513)	$0.165	($0.252)	-10%
Office & Other Services	$0	$0.096	$0.080	$0.325	$0.501	33%

Current and proposed development fees for water and wastewater facilities are summarized in Figure 4. There is a fee schedule for development in the Neely Service Area (north Gilbert) and the Greenfield Service Area (south Gilbert). For nonresidential development, fees decrease in both areas, but more so in north Gilbert. For residential development, fees decrease for a single unit in the north but increase 1-6 percent in the south. For a dwelling unit in a residential structure with two or more units, proposed water and sewer fees increase 24-36 percent, primarily because the current water fees in Gilbert are unusually low per multifamily unit.

Figure 4 – Current and Proposed Fees for Utilities

Neely Service Area

Residential (per housing unit)	*Water System & Resource*	*Waste-water*	*Total Proposed Fee*	*Current Total Fee*	*$ Change*	*% Change*
Single Unit 0.75" meter	$7,546	$3,775	$11,321	$12,263	($942)	-8%
Single Unit 1" meter	$12,602	$3,775	$16,377	$16,466	($89)	-1%
2+ Units per Structure	$5,188	$2,596	$7,784	$6,294	$1,490	24%
Nonresidential (by water meter size)						
Meter Size (inches)						
0.75	$7,284	$3,644	$10,928	$12,803	($1,875)	-15%
1.00	$12,164	$6,085	$18,249	$21,976	($3,727)	-17%
1.50	$24,256	$12,131	$36,387	$47,486	($11,099)	-23%
2.00	$38,824	$19,415	$58,239	$78,985	($20,746)	-26%

Greenfield Service Area

Residential (per housing unit)	*Water System & Resource*	*Waste-water*	*Total Proposed Fee*	*Current Total Fee*	*$ Change*	*% Change*
Single Unit 0.75" meter	$7,546	$4,869	$12,415	$12,263	$152	1%
Single Unit 1" meter	$12,602	$4,869	$17,471	$16,466	$1,005	6%
2+ Units per Structure	$5,188	$3,348	$8,536	$6,294	$2,242	36%
Nonresidential (by water meter size)						
Meter Size (inches)						
0.75	$7,284	$4,700	$11,984	$12,803	($819)	-6%
1.00	$12,164	$7,849	$20,013	$21,976	($1,963)	-9%
1.50	$24,256	$15,648	$39,904	$47,486	($7,582)	-16%
2.00	$38,824	$25,045	$63,869	$78,985	($15,116)	-19%

PARKS AND RECREATION

ARS 9-463.05 (T)(7)(G) defines the facilities and assets which can be included in the Parks and Recreational Facilities IIP:

> *"Neighborhood parks and recreational facilities on real property up to thirty acres in area, or parks and recreational facilities larger than thirty acres if the facilities provide a direct benefit to the development. Park and recreational facilities do not include vehicles, equipment or that portion of any facility that is used for amusement parks, aquariums, aquatic centers, auditoriums, arenas, arts and cultural facilities, bandstand and orchestra facilities, bathhouses, boathouses, clubhouses, community centers greater than three thousand square feet in floor area, environmental education centers, equestrian facilities, golf course facilities, greenhouses, lakes, museums, theme parks, water reclamation or riparian areas, wetlands, zoo facilities or similar recreational facilities, but may include swimming pools."*

The infrastructure improvements plan includes components for additional park improvements, pools, trails and community centers, plus a cost recovery component for the growth share of existing debt service. Gilbert will maintain existing infrastructure standards, using an incremental expansion cost method for all components except debt service.

Parks and Recreation Service Area

Gilbert provides a uniform level-of-service throughout the entire town and will use development fee funding for infrastructure that attracts patrons from all geographic areas. Based on this service delivery strategy, Gilbert has a town-wide service area for parks and recreation facilities.

Proportionate Share for Parks and Recreation Facilities

ARS 9-463.05.B.3 states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to serve new development. The Town of Gilbert has determined the best indicator of the demand for parks and recreation facilities is year-round population. Because nonresidential development only creates an indirect and insignificant demand, capital costs are attributable solely to residential development.

Parks and Recreation Debt Service Methodology

Figure PR1 displays parks and recreational facilities that have been debt financed and are eligible for cost recovery. As documented in the Gilbert Debt Book, the growth cost of remaining principal and interest payment for each project was divided by the projected increase in population from 2013 to the fiscal year of the final debt payment to yield the growth cost per additional person. From 2013 to 2027, development fees will recover approximately $52.76 million for the growth share of remaining principal and interest payments. Over the next ten years the cost recovery is approximately $40.06 million.

Figure PR1 – Parks and Recreation Debt Service

CIP Project	*Facility*	*Year Debt Issued or Refinanced*	*Name of Debt Obligation*	*Remaining Growth Cost**	*FY of Final Payment*	*Population Increase FY13-14 to Final FY*	*Growth Cost per Additional Person*
PR076	Special Events Center	2009	PFMPC	$4,917,310	FY27-28	56,495	$87
PR087	Land for SW Activity Center & Fields	2009	PFMPC	$22,726,639	FY27-28	56,495	$402
PRO31 and PRO86	Land for Chandler Heights	2009	PFMPC	$14,580,060	FY27-28	56,495	$258
PR032	Rittenhouse District Park	2009	PFMPC	$10,537,422	FY27-28	56,495	$186
			Total	$52,761,431			$933

** Principal plus interest FY13/14 until debt is retired*

Existing Standards and IIP for Park Improvements

As specified in ARS 9-463.05.B.4 development fees in Gilbert are based on the same level of service provided to existing development. Figure PR2 inventories existing parks in Gilbert that are roughly the same size as future parks that will be funded with development fees. Consistent with Arizona's enabling legislation, large regional parks are excluded from development fees. Also, Gilbert excluded small parks that might not provide a substantial nexus to the entire service area. The average size of the parks listed below is 40.1 acres. Parks in the existing inventory that exceed 30 acres all have sports facilities used by organized leagues that directly benefit development throughout Gilbert.

As shown at the bottom of the table below, Gilbert has provided1.2 acres of improved parks for every 1,000 persons in the Municipal Planning Area (MPA). This is a conservative approach given that current Town limits are smaller than the MPA. The cost factor for parks improvements is $363,600 per acre, based on planned expenditures to Hetchler Park (see PR069) where the Town will spend approximately $20 million in development fee revenue to improve the 55-acre park site. To maintain current infrastructure standards for parks, Gilbert will spend $451 for each additional resident.

Figure PR2 – Gilbert Parks Inventory and Existing Standards

*Existing Parks**	*Improved Acres*
Freestone**	72.7
Crossroads**	54.0
Discovery Park**	44.2
Gilbert Soccer Complex	42.0
McQueen Park Phases I & II	41.0
Cosmo	16.0
Zanjero	11.0
Total =>	280.9
Average Acres per Park =>	40.1

Allocation Factors for Park Improvements

Improvements Cost per Acre***	$363,600
Improvements Cost per Average Size Park	$14,590,000
Residential Proportionate Share	100%
Nonresidential Proportionate Share	0%
Gilbert MPA Population in 2013	226,436

Infrastructure Standards for Park Improvements

	Improved Acres	*Capital Cost*
Residential (per person)	0.0012	$451.00

** According to the Arizona enabling legislation, parks up to 30 acres are considered necessary. Larger parks can be included if they provide direct benefit to new development.*
*** Acres exclude water/riparian area, community centers, plus specialized recreation facilities like skate parks, and thus vary from Table 4 in draft master plan (PLANet June 2013).*
**** Cost per acre for improvements at Hetchler Park (PR069).*

Arizona's development fee enabling legislation requires jurisdictions to convert land use assumptions into service units and the corresponding need for additional infrastructure over the next ten years. As shown in Figure PR3, projected population drives the needs analysis for park improvements. To maintain current standards, Gilbert will improve approximately 53 acres of parkland over the next ten years. The ten-year, growth-related capital cost for park improvements is approximately $19.34 million. Given the close match with the growth-related need, Gilbert's IIP for park improvements is to construct Hetchler Park (project PR069 in the Town's CIP) with development fee funding within the next ten years.

Figure PR3 – Parks Needed to Accommodate Growth

		Park Improvements Need	
		Gilbert MPA	*Acres of*
	Year	*Population*	*Improved Parks*
Base	2013	226,436	280.9
Year 1	2014	231,104	286.7
Year 2	2015	235,772	292.5
Year 3	2016	240,440	298.3
Year 4	2017	245,108	304.1
Year 5	2018	249,777	309.9
Year 6	2019	254,445	315.6
Year 7	2020	259,113	321.4
Year 8	2021	262,516	325.7
Year 9	2022	265,918	329.9
Year 10	2023	269,321	334.1
	Ten-Yr Increase	42,885	53.2
	Total Projected Expenditures on Parks =>		$19,344,000

IIP for Pools

Gilbert currently has four swimming pools that serve a year-round population of 226,436 residents in the entire MPA, which is an average of 56,609 persons per pool. Gilbert plans to construct the next pool at Campo Verde High School at a cost of $8,072,000 (see PR081 in the Town's CIP). To maintain the current infrastructure standard for pools, Gilbert will spend $142 for each additional resident.

Figure PR4 – Swimming Pool Standards in Gilbert

Existing Pools

1. Mesquite Aquatic Center
2. Greenfield Pool
3. Williams Field Pool
4. Perry Pool

Allocation and Cost Factors for Pools

Estimated Cost of a New Pool (1)	$8,072,000
Residential Proportionate Share	100%
Nonresidential Proportionate Share	0%
Gilbert MPA Population in 2013	226,436

(1) Based on the future pool at Campo Verde High School (see PR081).

Infrastructure Standards and Needs Analysis for Pools

Average Residents per Pool	56,609
Capital Cost per Person	$142

As shown in Figure PR5, Gilbert will construct an additional pool with the next ten years, but development fees will only fund 76% of the capital cost. The ten-year, growth-share for the new pool is approximately $6.09 million, with the funding gap of $1.98 million requiring either General Fund revenue or a General Obligation bond that will be paid from future property taxes.

Figure PR5 – Growth-Related Need for Additional Pool

		Infrastructure Needed	
		Gilbert MPA Population	*Percent of Additional Pool*
	Year		
Base	2013	226,436	
Year 1	2014	231,104	
Year 2	2015	235,772	
Year 3	2016	240,440	
Year 4	2017	245,108	
Year 5	2018	249,777	
Year 6	2019	254,445	
Year 7	2020	259,113	
Year 8	2021	262,516	
Year 9	2022	265,918	
Year 10	2023	269,321	
	Ten -Yr Increase	42,885	76%
	Growth Share of Additional Pool =>		$6,090,000

IIP for Trails

Gilbert currently has 93,092 linear feet of trails (see Figure PR6), which is 0.41 linear feet of trails for every resident in the Municipal Planning Area (MPA). This is a conservative approach given that current Town limits are smaller than the MPA. The cost factor of $120 per linear foot of trail is based on the Town's plan to construct Heritage and Western Canal Trails (see PR006 and PR011). To maintain current infrastructure standards for trails, Gilbert will spend $49 for each additional resident.

Figure PR6 – Trails Needed to Accommodate Growth

	Existing	*Proposed*
Total Linear Feet*	93,092	268,434

** Total linear feet provided by PLANet (June 2013).*

	2013	*2030*
Gilbert MPA Population in 2013	226,436	316,353
Linear Feet per Person	0.41	0.85

Infrastructure Standards for Trails

Trials (existing level of service)	0.41	linear feet per person
Trail Cost (PR006 & PR011)	$120	per linear foot
Capital Cost per Person	$49	

As shown in Figure PR9, projected population creates a need for approximately 17,631 linear feet of trails, estimated to cost $2,116,000. The growth-related need closely matches the combined length and cost of Heritage and Western Canal Trails, which is Gilbert's IIP for trails.

Figure PR7 – Trails Needed to Accommodate Growth

		Trails Needed	
	Year	*Gilbert MPA Population*	*Linear Feet of Trails*
Base	2013	226,436	93,092
Year 1	2014	231,104	95,011
Year 2	2015	235,772	96,930
Year 3	2016	240,440	98,849
Year 4	2017	245,108	100,769
Year 5	2018	249,777	102,688
Year 6	2019	254,445	104,607
Year 7	2020	259,113	106,526
Year 8	2021	262,516	107,925
Year 9	2022	265,918	109,324
Year 10	2023	269,321	110,723
	Ten-Yr Increase	42,885	17,631
	Total Projected Expenditures on Trails =>		$2,116,000

IIP for Community Centers

Figure PR8 inventories existing community centers in Gilbert. With four centers that provide a total 100,730 square feet of floor area, Gilbert has provided 0.44 square feet of community centers for every resident in the Municipal Planning Area (MPA). Gilbert's IIP is to spend $9,667,000 for Crossroads Community Center (PR039). Because development fee enabling legislation limits community centers to 3,000 square feet, only 12% of the facility is eligible for development fee funding. The growth share of the next community center equates to a capital cost of $27 for each additional resident over the next ten years.

Figure PR8 – Infrastructure Standards for Community Centers

Existing Facility	*Square Feet*
Freestone Center	48,500
McQueen Park Center	26,800
Gilbert Community Center	16,550
Page Park Center	8,880
TOTAL	100,730

Cost Estimates for Community Centers

Project	*Estimated Cost*	*Development Fee Share**	*Square Feet*
Crossroads Community Center (PR039)	$9,667,000	12%	25,000

** Limited to 3,000 square feet based on AZ Development Fee Act*

Allocation Factors for Community Centers

Total Cost per Square Foot	$386
Residential Proportionate Share	100%
Nonresidential Share	0%
Gilbert MPA 2013 Population	226,436

Infrastructure Standards and Needs Analysis for Community Centers

Recreation Buildings (existing level of service) =>	0.44	square feet per person
Growth Share of Community Center Cost =>	$27	per additional person

As shown in Figure PR9, Gilbert needs 19,077 square feet of community centers to maintain its current standard. Yet only 3,000 square feet may be funded with development fees, which is 12% of the projected cost of Gilbert's next community center.

Figure PR9 – Community Centers Needed to Accommodate Growth

		Community Center Needs	
	Year	*Gilbert MPA Population*	*Sq Ft of Recreation Buildings*
Base	2013	226,436	100,730
Year 1	2014	231,104	102,806
Year 2	2015	235,772	104,883
Year 3	2016	240,440	106,960
Year 4	2017	245,108	109,036
Year 5	2018	249,777	111,113
Year 6	2019	254,445	113,190
Year 7	2020	259,113	115,266
Year 8	2021	262,516	116,780
Year 9	2022	265,918	118,294
Year 10	2023	269,321	119,807
	Ten-Yr Increase	42,885	19,077
Total Cost of 25,000 Square Feet Community Center =>			$9,667,000
Development Fee Funding Based on 3,000 Square Feet (12%) =>			$1,160,040

Parks and Recreation Development Fees

Infrastructure standards and cost factors for parks and recreation facilities are summarized in the upper portion of Figure PR10. The conversion of infrastructure needs and costs per service unit into a cost per development unit is also shown in the table below. For residential development, average number of persons per housing unit provides the necessary conversion. Updated development fees for parks and recreation facilities are shown in the column with light green shading. Proposed parks/recreation fees for a single residential unit increase by 15%, with an 8% decrease per dwelling in a residential structure with two or more units.

Figure PR10 – Parks and Recreation Service Units and Fees per Development Unit

Fee Component	*Cost per Person*
Cost Recovery for Debt Service	$933.00
Parks	$451.00
Pools	$142.00
Trails	$49.00
Community Centers	$27.00
Master Plan, IIP, and Fee Study	$9.32
Required Offset Revenue Credit	
TOTAL	$1,611.32

Type	*Persons per Housing Unit*	*Proposed Fee*	*Current Fees*	*$ Change*	*% Change*
Single Unit	2.88	$4,640	$4,030	$610	15%
2+ Units per Structure	1.98	$3,190	$3,465	($275)	-8%

Projected Revenue from Parks and Recreation Fees

The top of Figure PR11 summarizes the growth-related cost of infrastructure in Gilbert over the next ten years (approximately $69 million for parks and recreation facilities). Gilbert should receive approximately $69 million in parks and recreation fee revenue over the next ten years, if actual development matches the land use assumptions documented in Appendix C.

Figure PR11 – Parks and Recreation Development Fee Revenue

Ten-Year Growth-Related Costs for Parks and Recreation (in millions)

Debt Service	$40.06
Park Improvements	$19.35
Pool	$6.09
Trails	$2.12
Community Center	$1.17
Total	$68.79

		Single Unit $4,640 per housing unit	*2+ Units* $3,190 per housing unit
		89%	11%
	Year	*Hsg Units*	*Hsg Units*
Base	2013	72,479	8,958
Year 1	2014	73,973	9,143
Year 2	2015	75,467	9,327
Year 3	2016	76,962	9,512
Year 4	2017	78,455	9,697
Year 5	2018	79,950	9,882
Year 6	2019	81,444	10,066
Year 7	2020	82,938	10,251
Year 8	2021	84,028	10,385
Year 9	2022	85,117	10,520
Year 10	2023	86,205	10,655
	Ten-Yr Increase	13,726	1,697
	Projected Fees =>	$63,690,000	$5,410,000
	Total Projected Revenues (rounded) =>		$69,100,000

GENERAL GOVERNMENT AND LIBRARIES

ARS 9-463.05 (T)(7)(f) does not include General Government Facilities as a necessary public service. However, facilities which have been debt financed can be included in the IIP and development fees:

> *"Any facility that was financed and that meets all of the requirements prescribed in subsection R of this section.*
>
> *R. A municipality may continue to assess a development fee adopted before January 1, 2012 for any facility that was financed before June 1, 2011 if:*
>
> > *1. Development fees were pledged to repay debt service obligations related to the construction of the facility.*
> >
> > *2. After August 1, 2014, any development fees collected under this subsection are used solely for the payment of principal and interest on the portion of the bonds, notes or other debt service obligations issued before June 1, 2011 to finance construction of the facility."*

The Town has outstanding debt service for the South Area Service Center and the Perry Library, which meet the above criteria. These facilities were oversized in anticipation of new development. Also, the minor cost of preparing the General Government and Library Facilities IIP and development fees is included in the development fees for General Government and Library Facilities.

Service Area

The service area for the General Government and Libraries is town-wide. New development throughout Gilbert will benefit from the Service Center and Library.

Proportionate Share

ARS 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to provide necessary public services to the development. TischlerBise recommends functional population to allocate future debt service payments to residential and nonresidential development, as shown in Figure GGL1. Functional population is similar to what the U.S. Census Bureau calls "daytime population," by accounting for people living and working in a jurisdiction. As shown in Figure PS1, residents that don't work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents that work in Gilbert are assigned 14 hours to residential development and 10 hours to nonresidential development. Residents that work outside Gilbert are assigned 14 hours to residential development. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2011 functional population data for Gilbert, the cost allocation for residential development is 83% while nonresidential development accounts for 17% of the demand for public safety infrastructure.

Figure GGL1 – Functional Population

	Demand Units in 2011			*Demand Hours/Day*	*Person Hours*
Residential					
	Population*	211,964			
56%	Residents Not Working	119,559		20	2,391,180
44%	Resident Workers**	92,405			
9%	Worked in City**		8,727	16	139,632
91%	Worked Outside City**		83,678	16	1,338,848
				Residential Subtotal	3,869,660
				Residential Share =>	**83%**
Nonresidential					
	Non-working Residents	119,559		4	478,236
	Jobs Located in City***	40,858			
21%	Residents Working in City**		8,727	8	69,816
79%	Non-Resident Workers (inflow commuters)		32,131	8	257,048
				Nonresidential Subtotal	805,100
				Nonresidential Share =>	**17%**
				TOTAL	4,674,760

** 2011 American Community Survey, U.S. Census Bureau.*
*** 2011 Inflow/Outflow Analysis, OnTheMap web application, U.S. Census Bureau data for all jobs.*

Growth Cost of General Government and Library Debt Obligations

The Town owes approximately $19 million in debt service on the South Area Service Center through FY20/21, with 26% of this amount attributable to growth (see Town's CIP description of this project). Additionally, development fees will repay approximately $2.4 million to the General Fund for the growth-related cost of internal borrowing used to construct Perry Branch Library. As shown in Figure GGL2, Gilbert will recover approximately $7.35 million from new development over the next seven years. The cost recovery for debt service equates to $183 per additional person and $53 per additional job.

Figure GGL2 – Debt on General Government Facilities

CIP Project	*Facility*	*Year of Debt Obligation*	*Name of Debt Obligation*	*FY of Final Payment*	*Remaining Growth Cost**
MF004	South Area Service Center	2006	PFMPC	20-21	$14,086,778
MF025	Perry Branch Library	2008	Internal borrowing	20-21	$2,413,000
* *Principal plus interest FY13/14 until debt is retired*				Total	$16,499,778

	Allocation Factors		*General Government and Library Debt Service*
Residential Proportionate Share	83%		
Nonresidential Proportionate Share	17%		
Population increase 2013-2020	32,677	Residential (per person)	$419
Job increase 2013-2020	23,500	Nonresidential (per job)	$119

General Government Development Fees

Cost recovery amounts for general government and library debt service are summarized in the upper portion of Figure GGL3. The conversion of costs per service unit into a cost per development unit is also shown in the table below. For residential development, Gilbert uses year-round persons per housing unit to derive fees by type of housing. For nonresidential development, the necessary conversion is jobs per 1,000 square feet, documented in the Land Use Assumptions for Gilbert. Updated development fees for general government and library facilities are shown in the column with light purple shading. Proposed fees are significantly higher for residential development. As required by Arizona's enabling legislation, proposed fees now vary for industrial development (slight decrease from current fees) and all other types of nonresidential (proposed fees increase by 47%). The required offset revenue credit is not applicable because development fees are only paying for the growth share of debt service. No other revenue will be used for this purpose.

Figure GGL3 – General Government Development Fees

	Cost per Person	*Cost per Job*
Cost Recovery for Debt Obligations	$419.00	$119.00
IIP and Fee Study	$0.49	$0.13
Required Offset Revenue Credit	$0.00	$0.00
TOTAL	$419.49	$119.13

Residential (per housing unit)

Type	*Persons per Hsg Unit**	*Proposed Fee Through FY20/21*	*Current Fee*	*$ Change*	*% Change*
Single Unit	2.88	$1,200	$383	$817	213%
2+ Units per Structure	1.98	$800	$329	$471	143%

** Figure A4, Land Use Assumptions, TischlerBise 8/3/13.*

Nonresidential (per square foot of building)

Type	*Jobs per Sq Ft***	*Proposed Fee Through FY20/21*	*Current Fee*	*$ Change*	*% Change*
Industrial	0.00166	$0.19	$0.204	($0.014)	-7%
Commercial	0.00260	$0.30	$0.204	$0.096	47%
Office & Other Services	0.00332	$0.30	$0.204	$0.096	47%

*** Figure C6, Land Use Assumptions, TischlerBise 8/3/13.*

Projected Fee Revenue for General Government and Libraries

Gilbert will only collect the general government and libraries fee through FY20/21, when the growth-related share of the debt obligation will be paid off. As shown in Figure GGL4, the Town expects to receive approximately $16.4 million for debt service payments over the next seven years.

Figure GGL4 – Projected Revenue from Development Fees

		Single Unit	*2+ Units*	*Industrial*	*Commercial*	*Office & Other Services*
		$1,200	$800	$190	$300	$300
	Fiscal	per housing unit	per housing unit	per 1000 Sq Ft	per 1000 Sq Ft	per 1000 Sq Ft
	Year	*Hsg Units*	*Hsg Units*	*Sq Ft x 1000*	*Sq Ft x 1000*	*Sq Ft x 1000*
Base	2013-14	72,479	8,958	8,440	10,290	13,340
Year 1	2014-15	73,973	9,143	8,680	10,620	14,140
Year 2	2015-16	75,467	9,327	8,940	10,950	14,950
Year 3	2016-17	76,962	9,512	9,180	11,280	15,780
Year 4	2017-18	78,455	9,697	9,440	11,610	16,620
Year 5	2018-19	79,950	9,882	9,690	11,940	17,480
Year 6	2019-20	81,444	10,066	9,940	12,270	18,350
Year 7	2020-21	82,938	10,251	10,190	12,600	19,240
	Seven-Yr Increase	10,459	1,293	1,750	2,310	5,900
	Projected Fees =>	$12,551,000	$1,034,000	$333,000	$693,000	$1,770,000
					Projected Revenue Over Seven Years =>	$16,381,000

TRAFFIC SIGNALS

ARS 9-463.05 (T)(7)(f) defines the facilities and assets which can be included in the Street Facilities IIP:

> *"Street facilities located in the service area, including arterial or collector streets or roads that have been designated on an officially adopted plan of the municipality, traffic signals and rights-of-way and improvements thereon."*

Gilbert development fees for traffic signals are derived using a plan-based approach derived from trip generation rates, trip rate adjustment factors, and the growth cost of specific intersection improvements to be completed over the next ten years. Each component is described below.

Service Areas for Traffic Signals

Gilbert identified arterial-arterial and arterial-collector intersections that require signalization to accommodate the projected increase in vehicle traffic over the next ten years. Because proposed signals are on arterial streets used for long-distance trips, the improvements provide a substantial nexus to development throughout the Town. Therefore, the service area for traffic signals is town-wide.

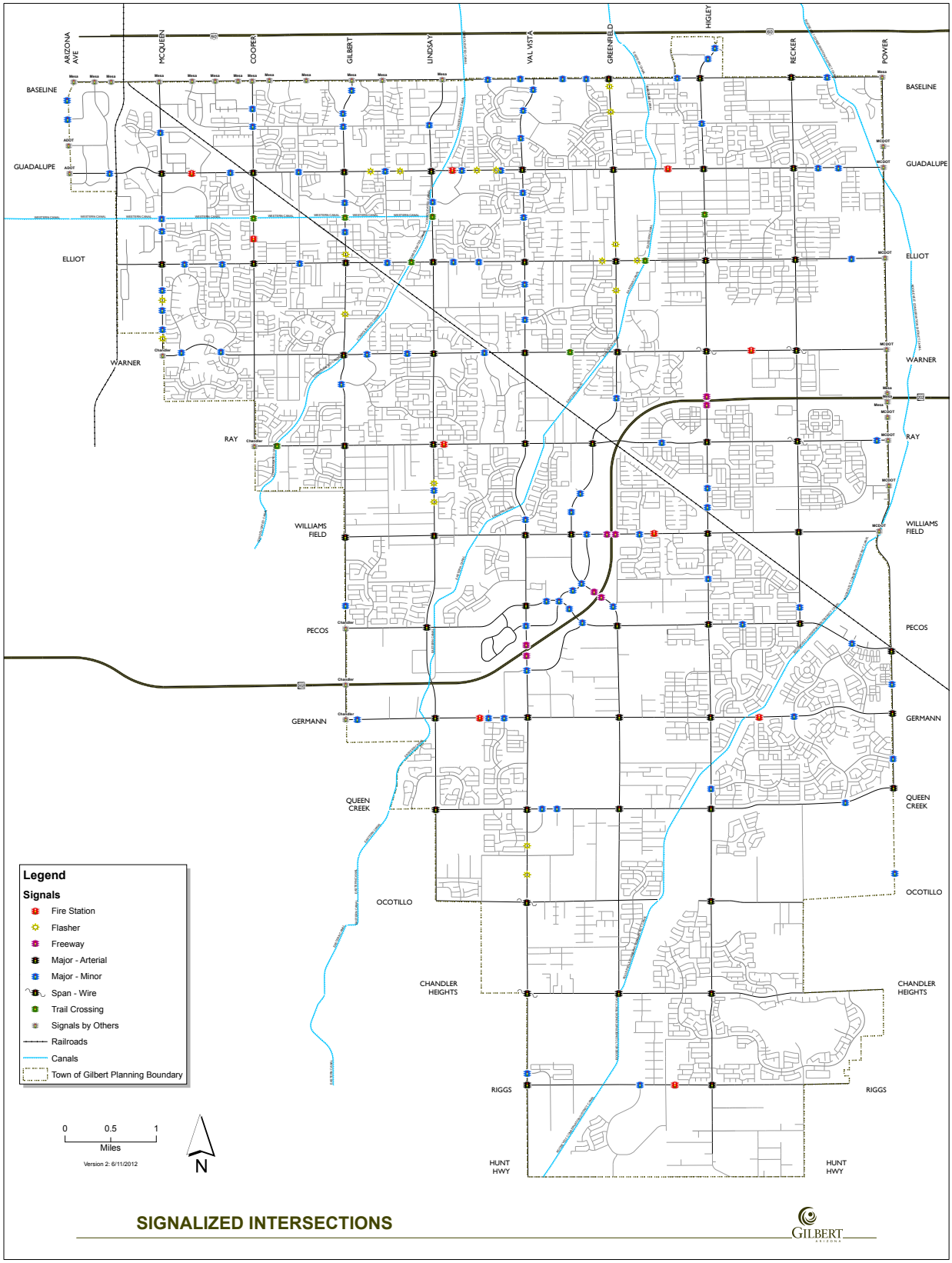
Existing Improved Intersections and LOS

For the purpose of development fees, improved intersections are limited to signalization and turn lanes at the intersection of two arterials, or an arterial with a collector. Gilbert currently has 154 signalized intersections that meet these criteria. As shown in Figure TS1, the current standard is 11.5 signalized intersections per 10,000 PM-Peak Hour Vehicle Trip Ends. Over the next ten years, Gilbert plans to signalize approximately 36 additional intersections. The projected infrastructure standard in 2023 is slightly below the current standard. Documentation on the calculation of vehicle trip ends is provided below, along with a list of intersections to be signalized. The existing inventory of signalized intersections is mapped in Figure TS2.

Figure TS1 – Current and Proposed Level-Of-Service Standards for Traffic Signals

	2013 PM-Peak Hour Trip Ends	2023 PM-Peak Hour Trip Ends
Single Unit Housing	73,929	87,929
2+ HU per Structure	6,002	7,139
Industrial KSF	9,115	11,707
Commercial KSF	25,196	32,395
Office & Other Services KSF	19,877	31,022
Total	134,119	170,192
	Pct Increase =>	27%
Arterial Signal Count =>	154	190
Signals per 10,000 Vehicle Trip Ends =>	11.5	11.2

Figure TS2 – Map of Signalized Intersections



Forecast of Service Units

Gilbert will use afternoon peak hour vehicle trip ends as the service units for documenting existing infrastructure standards and allocating the cost of future improvements.

Trip Generation Rates

Trip generation rates are from the reference book Trip Generation published by the Institute of Transportation Engineers (ITE 2012). A vehicle trip end represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway).

Adjustment for Pass-By Trips

Commercial development attracts vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For the average shopping center, the ITE data indicates that 34% of the vehicles that enter are passing by on their way to some other primary destination. The remaining 66% of attraction trips have the commercial site as their primary destination.

Projected Travel Demand

Current and future development in Gilbert, and the projected increase in service units, is shown in Figure TS3. On the left side of the table are both existing and projected development units in Gilbert. Trip generation rates convert projected development into additional PM-Peak Hour vehicle trip ends over the next ten years. The proportionate share factors (see column on the far right) are used to allocate the growth cost of future traffic signals to each type of development. For example, single-unit housing accounts for approximately 39% of the travel demand in Gilbert.

Figure TS3 – Ten-Year Travel Demand and Proportionate Share Factors

PM-Peak Hour Vehicle Trip Ends

Development Type (1)	*2013 Development Units (2)*	*2023 Development Units (2)*	*Additional Development Units 2013-2023*	*PM Peak Hour Trip Ends per Development Unit (3)*	*Service Unit Index*	*Additional PM-Peak Trip Ends 2013-2023*	*Proportionate Share*
Single Unit Housing	72,479	86,205	13,726	1.02	1.00	14,001	38.81%
2+ HU per Structure	8,958	10,655	1,697	0.67	0.66	1,137	3.15%
Industrial KSF	8,440	10,840	2,400	1.08	1.06	2,592	7.19%
Commercial KSF	10,290	13,230	2,940	2.45	2.40	7,199	19.96%
Office & Other Services KSF	13,340	20,820	7,480	1.49	1.46	11,145	30.89%
Housing Unit Total	81,437	96,860	15,423	TOTAL		36,074	100.0%
Nonres KSF Total	32,070	44,890	12,820				

(1) Single Unit Housing = single family detached and attached, plus mobile homes; KSF = square feet of floor area in thousands.

(2) Gilbert Land Use Assumptions, TischlerBise, 08/03/13.

(3) Trip Generation, Institute of Transportation Engineers, 2012.

Retail includes 34% pass-by adjustment.

Infrastructure Improvements Plan for Traffic Signals

Proposed development fees are based on a specific list of intersections to be signalized over the next ten years. If a developer is asked to construct a system improvement (i.e. a traffic signal on the list) as a condition of development approval, it will be necessary for Gilbert to provide a site-specific credit or reimburse the developer from future fee collections. The Town will continue to require project level improvements, such as turn lanes and signals for ingress/egress to a specific development, as a condition of development approval. To accommodate projected development over the next five years, Gilbert plans to provide signals at the 16 specific intersections listed below, with another 20 intersections to be improved in the subsequent five years. As shown in Figure TS4, the ten-year total cost of signalization is $26.99 million, but development fees will only pay 59% of the total cost. Reductions are due to cost sharing with other jurisdictions at two intersections, and the average-cost allocation for the Advanced Traffic Management System. Because new development is expected to increase afternoon peak hour trip ends by 27% over the next ten years (see Figure TS1 above), the growth share of ATMS improvements is 27%. The ten-year growth cost of traffic signals is approximately $15.93 million.

Figure TS4 – IIP for Traffic Signals

Project#	*Description*	*Total Cost*	*Growth Share*	*Growth Cost*
TS122	Higley and Warner	$344,000	100%	$344,000
TS123	Ray and Recker	$343,000	100%	$343,000
TS131	Advanced Traffic Management System Phase III	$2,007,000	27%	$541,890
TS132	Advanced Traffic Management System Phase IV	$1,437,000	27%	$387,990
TS133	Advanced Traffic Management System Phase V	$4,178,000	27%	$1,128,060
TS134	Advanced Traffic Management System Phase VI	$7,307,000	27%	$1,972,890
TS140	Elliot and Islands Dr	$87,000	100%	$87,000
TS144	Recker and Cooley Loop North	$221,000	100%	$221,000
TS145	Recker and Cooley Loop South	$221,000	100%	$221,000
TS146	Williams Field and Cooley Loop West	$221,000	100%	$221,000
TS147	Williams Field and Cooley Loop East	$221,000	100%	$221,000
TS150	Riggs and Recker	$309,000	75%	$231,750
TS154	Val Vista and Ocotillo	$330,000	100%	$330,000
TS155	Val Vista and Chandler Heights	$330,000	100%	$330,000
TS156	Greenfield and Ocotillo	$340,000	100%	$340,000
TS157	Recker and Warner	$361,000	100%	$361,000
TS158	Recker and Ocotillo	$361,000	75%	$270,750
TS162	Higley and Coldwater	$274,000	100%	$274,000
TS171	Gilbert and Vaughn	$300,000	100%	$300,000
TS172	Val Vista and Frye	$300,000	100%	$300,000
TSMIN	Minor Intersections (20 over ten years)	$7,500,000	100%	$7,500,000
	TOTAL	$26,992,000	59%	$15,926,330

Source: Town of Gilbert, 2013-2018 Capital Improvement Plan.

Development Fees for Traffic Signals

Current and proposed fees for traffic signals are shown in Figure TS5. Proposed fees are approximately equal to current fees for residential development. Proposed fees for industrial and office/other services increase by approximately 15%, with proposed fees for commercial decreasing by approximately 32%. The reduction for commercial is due to the pass-by adjustment recommended by TischlerBise.

To derive the traffic signal fee by type of development, multiply its proportionate share factor (based on the ten-year increase in vehicle trip ends (see Figure TS3) by the growth cost of improvements and divide by the increase in development units. For example, the fee for a single residential unit is 0.3881*$15,947,682/13,726, or $450 per unit (truncated).

Figure TS5 – Development Fee Schedule for Traffic Signals

	Growth Cost
Traffic Signals and ATMS	$15,926,330
IIP and Fee Study	$21,352
TOTAL	$15,947,682

Residential (per housing unit)

Type	*Proportionate Share*	*Additional Development Units 2013-2023*	*Proposed Fee*	*Current Fees*	*$ Change*	*% Change*
Single Unit	38.81%	13,726	$450	$423	$27	6%
2+ Units per Structure	3.15%	1,697	$296	$297	($1)	0%

Nonresidential (per square foot of building)

Type	*Proportionate Share*	*Additional Development Units 2013-2023*	*Proposed Fee*	*Current Fees*	*$ Change*	*% Change*
Industrial	7.19%	2,400	$0.47	$0.405	$0.06	16%
Commercial	19.96%	2,940	$1.08	$1.593	($0.51)	-32%
Office & Other Services	30.89%	7,480	$0.65	$0.570	$0.08	14%

Projected Revenue from Traffic Signal Development Fees

Revenue projections shown below assume implementation of the proposed traffic signal fees and that development over the next ten years is consistent with the land use assumptions described in Appendix C. To the extent the rate of development either accelerates or slows down, there will be a corresponding change in the impact fee revenue. The street fee revenue projection of $15.84 million in Figure TS6 matches the ten-year growth cost of planned system improvements.

Figure TS6 – Projected Fee Revenue for Traffic Signals

Traffic Signal Fee Revenue

		Single Unit	*2+ Units*	*Industrial*	*Commercial*	*Office & Other Services*
		$450 per housing unit	$296 per housing unit	$0.47 per Square Foot	$1.08 per Square Foot	$0.65 per Square Foot
	Year	*Hsg Units*	*Hsg Units*	*Sq Ft x 1000*	*Sq Ft x 1000*	*Sq Ft x 1000*
Base	2013	72,479	8,958	8,440	10,290	13,340
Year 1	2014	73,973	9,143	8,680	10,620	14,140
Year 2	2015	75,467	9,327	8,940	10,950	14,950
Year 3	2016	76,962	9,512	9,180	11,280	15,780
Year 4	2017	78,455	9,697	9,440	11,610	16,620
Year 5	2018	79,950	9,882	9,690	11,940	17,480
Year 6	2019	81,444	10,066	9,940	12,270	18,350
Year 7	2020	82,938	10,251	10,190	12,600	19,240
Year 8	2021	84,028	10,385	10,410	12,810	19,760
Year 9	2022	85,117	10,520	10,630	13,020	20,280
Year 10	2023	86,205	10,655	10,840	13,230	20,820
Ten-Yr Increase		13,726	1,697	2,400	2,940	7,480
Fee Revenue =>		$6,177,000	$502,000	$1,128,000	$3,175,000	$4,862,000
					Total =>	$15,844,000

PUBLIC SAFETY

ARS 9-463.05.T.7(f) defines the police facilities eligible for development fee funding.

> *"Police and fire facilities, including all appurtenances, equipment and vehicles. Police and fire facilities do not include a facility or portion of a facility that is used to replace services that were once provided elsewhere in the municipality, vehicles and equipment used to provide administrative services, helicopters or airplanes or a facility that is used for training officers from more than one station or substation."*

This section includes cost recovery of public safety debt for both police and fire facilities. Also, Gilbert will incrementally expand police vehicles and equipment to keep pace with development and provide two fire stations, with associated apparatus.

Public Safety Service Area

Police officers are dispersed throughout the entire Town responding to calls and patrolling to prevent crime. Fire services originate from multiple stations with additional units dispatched to meet the need of each incident. Given this service delivery pattern, Gilbert has one town-wide service area for public safety.

Proportionate Share

ARS 9-463.05.B.3 states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to serve new development. In Gilbert, cost recovery and police methodologies use functional population to allocate police infrastructure and costs to residential and nonresidential development. Functional population is similar to what the U.S. Census Bureau calls "daytime population," by accounting for people living and working in a jurisdiction. As shown in Figure PS1, residents that don't work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents that work in Gilbert are assigned 14 hours to residential development and 10 hours to nonresidential development. Residents that work outside Gilbert are assigned 14 hours to residential development. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2011 functional population data for Gilbert, the cost allocation for residential development is 83% while nonresidential development accounts for 17% of the demand for public safety infrastructure.

Figure PS1 – Functional Population

		Demand Units in 2011		*Demand Hours/Day*	*Person Hours*
Residential					
	Population*	211,964			
56%	Residents Not Working	119,559		20	2,391,180
44%	Resident Workers**	92,405			
9%	Worked in City**		8,727	16	139,632
91%	Worked Outside City**		83,678	16	1,338,848
				Residential Subtotal	3,869,660
				Residential Share =>	**83%**
Nonresidential					
	Non-working Residents	119,559		4	478,236
	Jobs Located in City***	40,858			
21%	Residents Working in City**		8,727	8	69,816
79%	Non-Resident Workers (inflow commuters)		32,131	8	257,048
				Nonresidential Subtotal	805,100
				Nonresidential Share =>	**17%**
				TOTAL	4,674,760

** 2011 American Community Survey, U.S. Census Bureau.*
*** 2011 Inflow/Outflow Analysis, OnTheMap web application, U.S. Census Bureau data for all jobs.*

Existing Police Facilities

Gilbert police will continue to use their existing buildings for the next five years. Rather than expand police buildings, development fees will be used to pay debt service on existing public safety buildings. The debt service calculations are discussed at the end of the public safety section.

Development fees will be used to expand the fleet of police vehicles to keep pace with development. Figure PS2 lists police vehicles used by Gilbert's Police Department during FY13-14. Patrol cars and SUVs account for most of the cost. In FY13-14, Gilbert has 199 vehicles with a capital cost of approximately $8.29 million, which is a weighted average cost of approximately $41,600 per vehicle. Every 1,000 additional residents will require Gilbert to purchase 0.7 additional police vehicles or equipment items. To maintain the current infrastructure standard for police vehicles and equipment, each additional person equates to a capital cost of $30.34, with additional PM-Peak vehicle trip ends to nonresidential development representing a capital cost of $25.97. The inventory below excludes vehicles used for administrative services.

Figure PS2 – Gilbert Police Vehicles

Police Vehicles	*Count*	*Current Cost per Unit*	*Total*
Sedans	135	$46,400	$6,264,000
SUV	8	$49,900	$399,200
Motorcycle	24	$31,000	$744,000
Pickup Truck	12	$39,100	$469,200
Radar Trailer	2	$6,000	$12,000
Trailer	5	$11,600	$58,000
Small Sedans	6	$18,900	$113,400
Ford F700 Armour	1	$85,000	$85,000
Van	3	$31,700	$95,100
Cart	2	$5,500	$11,000
Panel Truck	1	$35,000	$35,000
TOTAL	199		$8,285,900
Weighted Average Cost per Unit =>		$41,600	

Source: Town of Gilbert Police Department. Cost includes all equipment needed to place the unit in service.

Police Vehicle Standards	*Residential*	*Nonresidential*
Proportionate Share	83%	17%
Growth Indicator	*Persons*	*PM Peak Hour Vehicle Trip Ends*
Service Units in 2013	226,436	54,188
Vehicles per Service Unit	0.0007	0.0006
Cost per Service Unit	$30.34	$25.97

Development fees will be used to purchase additional communications equipment that has a useful life of at least three years. In FY13-14, Gilbert has 332 vehicles and equipment items, with a capital cost of approximately $2.4 million, which is a weighted average cost of approximately $7,200 per item. The existing level of service is the residential and nonresidential proportionate share of the equipment inventory divided by the respective service units in 2013. For example, the level of service for residential development is 1.2 equipment items per person and a capital cost of $8.76 for each additional resident.

Figure PS3 – Gilbert Police Communications Equipment

Communications Equipment	*Count*	*Cost per Unit*	*Total*
XTS-5000 Motorola Portable Radio	311	$5,200	$1,617,200
XLT-5000 Consolette	11	$8,700	$95,700
Gold Elite Radio Console System	8	$75,000	$600,000
VIPER Position	1	$27,500	$27,500
VPI Audio/Video Logger	1	$65,000	$65,000
TOTAL	332		$2,405,400
Weighted Average Cost per Unit =>		$7,200	

Source: Town of Gilbert Police Department. Does not include units in vehicles.

Communications Equipment Standards

	Residential	*Nonresidential*
Proportionate Share	83%	17%
Growth Indicator	*Persons*	*PM Peak Hour Vehicle Trip Ends*
Service Units in 2013	226,436	54,188
Communication Items per Service Unit	0.0012	0.0010
Cost per Service Unit	$8.76	$7.49

Police Infrastructure Needs and Improvements Plan

Arizona's development fee enabling legislation requires jurisdictions to convert land use assumptions in service units and the corresponding need for additional infrastructure over the next ten years. As shown in Figure PS4, projected population and vehicle trip ends to nonresidential development are the service units that drive the need for police vehicles and equipment. To maintain current standards over the next ten years, Gilbert will add 44 vehicles and 74 communication equipment items. The growth-related capital expenditure on additional police vehicles or equipment items is approximately $2.36 million over the next ten years.

Figure PS4 – Police Facilities Needed to Accommodate Growth

Infrastructure Standards and Capital Costs

Police Vehicles - Residential	0.0007	vehicles per person
Police Vehicles - Nonresidential	0.0006	vehicles per trip ends
Police Vehicle Cost	$41,600	per vehicle
Police Com Equipment - Residential	0.0012	Sq Ft per person
Police Com Equipment - Nonresidential	0.0010	Sq Ft per vehicle trip
Police Com Equipment Cost	$7,200	per item

				Infrastructure Needed	
	Year	*Gilbert MPA Population*	*Gilbert Nonres Veh Trip Ends*	*Police Vehicles*	*Communications Equipment*
Base	2013	226,436	54,188	199	332
Year 1	2014	231,104	56,447	204	340
Year 2	2015	235,772	58,743	209	348
Year 3	2016	240,440	61,046	213	356
Year 4	2017	245,108	63,387	218	364
Year 5	2018	249,777	65,746	223	372
Year 6	2019	254,445	68,121	228	381
Year 7	2020	259,113	70,525	233	389
Year 8	2021	262,516	72,052	236	395
Year 9	2022	265,918	73,578	240	400
Year 10	2023	269,321	75,124	243	406
Ten-Yr Increase		42,885	20,936	44	74
			Cost of Police Vehicles =>	$1,830,000	
				Cost of Police Equipment =>	$533,000
			Total Projected Expenditures (rounded) =>		$2,363,000

Police Development Fees

Infrastructure standards and cost factors for police are summarized in the upper portion of Figure PS5. The conversion of infrastructure needs and costs per service unit into a cost per development unit is also shown in the table below. For residential development, Gilbert will use year-round population to derive police development fees. For nonresidential development, Gilbert will use PM peak hour vehicle trip ends as the service unit. Vehicle trip ends associated with nonresidential development are based on floor area estimates for industrial, commercial, and office/other development, as documented in the Land Use Assumptions (see Appendix C). Also, trip generation rates are discussed further in the Traffic Signals section of this report.

Updated development fees for police facilities are shown in the column with blue shading. The proposed fees for police vehicles and equipment are less than current fees because the cost of police buildings is in the proposed public safety debt service fee, discussed at the end of this section.

Figure PS5 – Police Service Units and Fees per Development Unit

	Cost per Person	*Cost per Trip Ends*
Vehicles	$30.34	$25.97
Communications	$8.76	$7.49
IIP and Fee Study	$0.44	$0.20
Required Offset		
TOTAL	$39.54	$33.66

Residential (per housing unit)

Type	*Persons per Hsg Unit*	*Proposed Fee*
Single Unit	2.88	$113
2+ Units per Structure	1.98	$78

Nonresidential (per square foot of building)

Type	*PM Peak Hour Vehicle Trip Ends*	*Proposed Fee*
Industrial	0.00108	$0.03
Commercial	0.00245	$0.08
Office & Other Services	0.00149	$0.05

Proportionate Share Factors for Fire Facilities

The development fee update for Gilbert allocates the capital cost of fire facilities based on calls for service to residential and nonresidential development. As shown in Figure PS6, residential development accounted for 62% of calls and nonresidential development accounted for 38% of calls in 2011, which is the latest available data from the Gilbert Fire Department.

Figure PS6 – Fire Proportionate Share

Calls for Service	*2009*	*2010*	*2011*
Residential	71%	67%	62%
Nonresidential	29%	33%	38%
TOTAL	100%	100%	100%

Source: Town of Gilbert Fire Department.

Existing Fire Facilities and Infrastructure Standards

As specified in ARS 9-463.05.B.4, fire development fees in Gilbert are based on the same level of service provided to existing development. Figure PS7 inventories fire stations and documents current standards of 0.32 square feet per person and 0.53 square feet per job in Gilbert. Because Town limits are approaching the geographic extent of the Municipal Planning Area (MPA), Gilbert staff determined that only two fire stations are needed over the next ten years. In other words, fire stations and apparatus may increase at a slower pace than development, with the Town maintaining adequate response times.

Figure PS7 – Gilbert Fire Stations

Fire Stations	*Square Feet*
Station 1	23,000
Station 2	11,000
Station 3	13,500
Station 4	6,500
Station 5	10,500
Station 6	10,500
Station 7	6,000
Station 8	10,500
Station 10	11,000
Station 11	15,000
TOTAL	117,500

Allocation Factors for Fire Stations

Cost per Square Foot	$567
Residential Share	62%
Nonresidential Share	38%
Population in 2013	226,436
Jobs in 2013	84,630

Infrastructure Standards for Fire Stations

	Square Feet	*Capital Cost*
Residential (per person)	0.32	$182.41
Nonresidential (per job)	0.53	$299.14

Development fees will be used to purchase additional apparatus, consistent with the Town's plan to construct two fire stations over the next ten years. Figure PS8 lists fire apparatus currently used by the Gilbert Fire Department. In FY13-14, Gilbert has 59 vehicles and equipment items, with a capital cost of approximately $22.8 million. Based on the entire inventory, the weighted average cost is approximately $386,4000 per item.

Figure PS8 – Gilbert Fire Apparatus

Fire Apparatus	*Vehicle Count*	*Unit Cost*	*Total Cost*
Ladder Tender	3	$340,000	$1,020,000
Air/Light Truck	1	$440,000	$440,000
Pumper	14	$984,000	$13,776,000
Aerial	4	$990,000	$3,960,000
Command Vehicle	1	$740,000	$740,000
Brush Truck	1	$340,000	$340,000
Disaster Response	1	$540,000	$540,000
Water Tanker	2	$340,000	$680,000
Haz Mat	1	$540,000	$540,000
Communications Equipment*	31	$24,600	$762,600
TOTAL	59		$22,798,600

* Radios, dispatch, and microwave network.

Allocation Factors for Fire Apparatus

Average Cost per Unit	$386,400
Residential Share	62%
Nonresidential Share	38%
Population in 2013	226,436
Jobs in 2013	84,630

Infrastructure Standards for Fire Apparatus

	Fire Apparatus	*Capital Cost*
Residential (per person)	0.00016	$62.42
Nonresidential (per job)	0.00026	$102.36

Future Need for Fire Facilities

Fire development fee will be derived using a plan-based method. Figure PS9 summarizes Gilbert's plan for fire stations and apparatus over the next ten years. The cost of Station 7 is only for expansion, excluding the cost of replacing existing floor area. The projected total cost of $7.54 million for fire stations is allocated to the increase in service units over the next ten years. Gilbert will also spend approximately $2.68 million on fire apparatus needed at these stations. The apparatus cost is $38.80 for each additional person and $35.09 for each additional job in Gilbert.

Figure PS9 – IIP for Fire Stations and Apparatus

Fire Stations	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*	*Years 6-10*	*Total*
MF023 Fire Station 9 (less $984,000 for apparatus)	$0	$715,000	$5,236,000	$0	$0	$0	$5,951,000
MF217 Fire Station 7 expansion	$148,000	$1,445,000	$0	$0	$0	$0	$1,593,000
Subtotal	$148,000	$2,160,000	$5,236,000	$0	$0	$0	$7,544,000

Source: FY13-18 Town of Gilbert CIP.

	Residential per person	*Nonresidential per job*
Proportionate Share	62%	38%
Ten Year Increase in Service Units	42,885	29,061
Cost per Additional Service Unit	$109.06	$98.64

Fire Apparatus	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*	*Years 6-10*	*Total*
MF023 Fire Station 9 Apparatus	$0	$0	$0	$0	$0	$984,000	$984,000
MF216 Adaptive Response Unit (ARU)	$0	$0	$0	$0	$0	$850,000	$850,000
MF229 Additional Pumper at FS 10	$0	$0	$850,000	$0	$0		$850,000
Subtotal	$0	$0	$850,000	$0	$0	$1,834,000	$2,684,000

Source: FY13-18 Town of Gilbert CIP.

	Residential per person	*Nonresidential per job*
Proportionate Share	62%	38%
Ten Year Increase in Service Units	42,885	29,061
Cost per Additional Service Unit	$38.80	$35.09

Grand Total for Stations plus Apparatus	$10,228,000

Fire Development Fees

Capital cost factors documented above are summarized in the upper portion of Figure PS10, with proposed fire development fees shown at the bottom of the table. For residential development, average persons per housing unit indicate the relationship between service and development units. For nonresidential development, jobs per thousand square feet of floor area convert the cost per service unit into the fee per development unit. Gilbert's land use assumptions (see Appendix C) provide documentation on jobs and nonresidential floor area. Proposed development fees for fire facilities are shown in the column with orange shading. Proposed fire development fees shown below do not include the cost recovery for public safety debt service, which is discussed below.

Figure PS10– Fire Service Units and Fees per Development Unit

	Cost per Person	*Cost per Job*
Fire Stations	$109.06	$98.64
Fire Apparatus	$38.80	$35.09
IIP and Fee Study	$0.40	$0.34
Required Offset		
TOTAL	$148.26	$134.07

Residential (per housing unit)

Type	*Persons per Hsg Unit*	*Proposed Fee*
Single Unit	2.88	$426
2+ Units per Structure	1.98	$293

Nonresidential (per square foot of building)

Type	Jobs per 1000 Sq Ft	Proposed Fee
Industrial	1.66	$0.22
Commercial	2.60	$0.34
Office & Other Services	3.32	$0.44

Cost Recovery for Public Safety Facilities

Figure PS11 lists public safety facilities that were debt financed and meet the criteria specified in ARS 9-463.05.R. The Town will use development fees to repay debt service obligations related to construction of these facilities. The growth cost of remaining principal and interest payments (~$30.59 million) were allocated to residential and nonresidential development based on functional population data for Gilbert. The residential share was divided by the projected increase in population from FY13-14 to the fiscal year of the final payment, yielding a total cost of $687.59 per person. In a similar manner, the nonresidential share of each debt obligation was divided by the projected increase in jobs from FY13-14 to the fiscal year of the final payment, yielding a total cost of $199.81 for each additional job in Gilbert.

Figure PS11 – Public Safety Facilities Debt Summary

CIP Project	*Facility*	*Year Debt Issued or Refinanced*	*Name of Debt Obligation*	*Remaining Growth Cost**	*FY of Final Payment*	*Population Increase*	*Cost per Additional Person*	*Job Increase*	*Cost per Additional Job*
MF002	Public Safety Complex	2011	PFMPC	$12,366,560	FY20-21	32,677	$314.11	23,500	$89.46
MF029	Police Property Facility	2006	PFMPC	$9,872,215	FY20-21	32,677	$250.76	23,500	$71.42
MF040	Land for Public Safety Training Complex	2009	PFMPC	$8,353,183	FY27-28	56,495	$122.72	36,475	$38.93
			Total	$30,591,958			$687.59		$199.81

Allocation Factors for Public Safety Facilities

Residential Proportionate Share	83%
Nonresidential Proportionate Share	17%

** Principal plus interest FY13/14 until debt is retired*

Public Safety Cost Recovery Development Fees

Cost factors for public safety facilities that were debt financed are summarized in the upper portion of Figure PS12. The conversion of infrastructure costs per service unit into a cost per development unit is also shown in the table below. As debt obligations are retired, the cost recovery component of public safety development fees will decrease over time. For example, a major decrease in the debt service component will occur in FY21/22 after Gilbert retires debt on the Public Safety complex and Police Property Facility. Because the cost recovery for public safety facilities is only for the growth share of debt service, there is no potential double payment from other revenues. Therefore, the required offset for other revenues is not applicable.

Figure PS12 – Public Safety Cost Recovery Development Fees

	During FY14/15-20/21		***During FY21/22-23/24***	
	Cost per Person	*Cost per Job*	*Cost per Person*	*Cost per Job*
Public Safety Complex	$314.11	$89.46		
Police Property Facility	$250.76	$71.42		
Land for Public Safety Training Complex	$122.72	$38.93	$122.72	$38.93
Required Offset (not applicable)	$0.00	$0.00	$0.00	$0.00
TOTAL	$687.59	$199.81	$122.72	$38.93
Residential (per housing unit)				
Type of Development	*Persons per Hsg Unit*	*Proposed Fee*	*Persons per Hsg Unit*	*Proposed Fee*
Single Unit	2.88	$1,980	2.88	$353
2+ Units per Structure	1.98	$1,361	1.98	$242
Nonresidential (per square foot of building)				
Type of Development	Jobs per 1000 Sq Ft	*Proposed Fee*	Jobs per 1000 Sq Ft	*Proposed Fee*
Industrial	1.66	$0.33	1.66	$0.06
Commercial	2.60	$0.51	2.60	$0.10
Office & Other Services	3.32	$0.60	3.32	$0.12

Combined Fee for Police, Fire, and Public Safety Debt

To facilitate a fair comparison of current police and fire development fees with the proposed amounts, TischlerBise prepared Figure PS13, summarizing proposed fee components for police, fire, and public safety debt service. Fee schedules are provided for two time periods to account to the change in debt service payments over the next ten years. The combined fee for a single residential unit is 76% more than the current fees for police and fire, but decreases dramatically in FY21/22.

In contrast to current public safety fees for nonresidential development, the proposed fees vary by type of development. A differentiation between industrial and commercial is now required by state enabling legislation (see ARS 9-463.05.B.13).

Figure PS13 – Combined Fee for Police, Fire, and Public Safety Debt Service

Residential (per housing unit) During FY14/15-20/21							
Type	*Proposed Police Fee*	*Proposed Fire Fee*	*Proposed Public Safety Debt Service*	*Proposed Total Fee*	*Current Police and Fire Fees*	*$ Change*	*% Change*
Single Unit	$113	$426	$1,980	$2,519	$1,433	$1,086	76%
2+ Units per Structure	$78	$293	$1,361	$1,732	$1,433	$299	21%
Nonresidential (per square foot of building) During FY14/15-20/21							
Type	*Proposed Police Fee*	*Proposed Fire Fee*	*Proposed Public Safety Debt Service*	*Proposed Total Fee*	*Current Police and Fire Fees*	*$ Change*	*% Change*
Industrial	$0.03	$0.22	$0.33	$0.58	$0.765	($0.185)	-24%
Commercial	$0.08	$0.34	$0.51	$0.93	$0.765	$0.165	22%
Office & Other Services	$0.05	$0.44	$0.60	$1.09	$0.765	$0.325	42%

Residential (per housing unit) During FY21/22-23/24							
Type	*Proposed Police Fee*	*Proposed Fire Fee*	*Proposed Public Safety Debt Service*	*Proposed Total Fee*	*Current Police and Fire Fees*	*$ Change*	*% Change*
Single Unit	$113	$426	$353	$892	$1,433	($541)	-38%
2+ Units per Structure	$78	$293	$242	$613	$1,433	($820)	-57%
Nonresidential (per square foot of building) During FY21/22-23/24							
Type	*Proposed Police Fee*	*Proposed Fire Fee*	*Proposed Public Safety Debt Service*	*Proposed Total Fee*	*Current Police and Fire Fees*	*$ Change*	*% Change*
Industrial	$0.03	$0.22	$0.06	$0.31	$0.765	($0.455)	-59%
Commercial	$0.08	$0.34	$0.10	$0.52	$0.765	($0.245)	-32%
Office & Other Services	$0.05	$0.44	$0.12	$0.61	$0.765	($0.155)	-20%

Projected Revenue from Public Safety Development Fees

Revenue projections shown below assume implementation of the proposed public safety fees and that development over the next ten years is consistent with the land use assumptions described in Appendix C. To the extent the rate of development either accelerates or slows down, there will be a corresponding change in the development fee revenue. The public safety fee revenue projection of approximately $43 million (shown below) matches the ten-year growth cost of planned system improvements, including $2.36 million for police vehicles and equipment, $10.23 million for fire stations and apparatus, plus $30.59 million for public safety debt service.

In contrast to the other types of infrastructure, public safety fees decrease after seven years. Therefore, the ten-year increase in development could not be multiplied by the proposed fee schedule. Although not shown below, annual development fee revenues were derived with only the ten-year total shown at the bottom of Figure PS14.

Figure PS14 – Projected Revenue for Public Safety Facilities

		Single Unit	*2+ Units*	*Industrial*	*Commercial*	*Office & Other Services*
	Year	*Hsg Units*	*Hsg Units*	*Sq Ft x 1000*	*Sq Ft x 1000*	*Sq Ft x 1000*
Base	13-14	72,479	8,958	8,440	10,290	13,340
Year 1	14-15	73,973	9,143	8,680	10,620	14,140
Year 2	15-16	75,467	9,327	8,940	10,950	14,950
Year 3	16-17	76,962	9,512	9,180	11,280	15,780
Year 4	17-18	78,455	9,697	9,440	11,610	16,620
Year 5	18-19	79,950	9,882	9,690	11,940	17,480
Year 6	19-20	81,444	10,066	9,940	12,270	18,350
Year 7	20-21	82,938	10,251	10,190	12,600	19,240
Year 8	21-22	84,028	10,385	10,410	12,810	19,760
Year 9	22-23	85,117	10,520	10,630	13,020	20,280
Year 10	23-24	86,205	10,655	10,840	13,230	20,820
Ten-Yr Increase		13,726	1,697	2,400	2,940	7,480
Fee Revenue =>		$29,260,000	$2,487,000	$1,217,000	$2,476,000	$7,395,000
					Total =>	$42,835,000

WATER FACILITIES

ARS 9-463.05 (T)(7)(f) defines the facilities and assets which can be included in the Water Facilities IIP:

> "Water facilities, including the supply, transportation, treatment, purification and distribution of water, and any appurtenances for those facilities."

The Water Facilities IIP includes additional water supply, treatment, storage and distribution lines, plus the cost of preparing the Water Facilities IIP and development fees.

Water Service Area and Service Units

Potable water is supplied via an interconnected grid to all areas of Gilbert. New development in all areas of Gilbert will benefit from the planned improvements. Gilbert has one, town-wide service area for water. Average day gallons of potable water are the service units for water development fees.

Water Connections and Demand

Based on the projected increase in population and jobs, Gilbert's average daily water demand will increase from 45.57 Million Gallons per Day (MGD) in 2013 to 52.49 MGD in 2023. Utility connections are expected to increase from 76,470 in 2013 to 93,655 in 2023.

Figure W1– Projected Demand

Year		Utility Connections	Million Gallons Per Avg Day	Annual Increase Connections	Annual Increase MGD	Cumulative Increase Connections	Cumulative Increase MGD
Past3	FY10-11	71,814	42.00				
Past2	FY11-12	71,910	42.00	96	0.00		
Past1	FY12-13	72,042	44.00	132	2.00		
Base	FY13-14	76,470	45.57	4,428	1.57		
Future1	FY14-15	78,386	46.34	1,917	0.77	1,917	0.77
Future2	FY15-16	80,303	47.12	1,917	0.77	3,834	1.54
Future3	FY16-17	82,220	47.89	1,917	0.77	5,751	2.32
Future4	FY17-18	84,137	48.66	1,917	0.77	7,668	3.09
Future5	FY18-19	86,054	49.43	1,917	0.77	9,585	3.86
Future6	FY19-20	87,971	50.21	1,917	0.15	11,502	4.63
Future7	FY20-21	89,888	50.98	1,917	0.15	13,419	5.40
Future8	FY21-22	91,144	51.48	1,255	0.10	14,674	5.91
Future9	FY22-23	92,399	51.99	1,255	0.10	15,930	6.42
Future10	FY23-24	93,655	52.49	1,255	0.10	17,185	6.92
Future11	FY24-25	94,910	53.00	1,255	0.10	18,441	7.43
Future12	FY25-26	96,166	53.51	1,255	0.10	19,696	7.93
Future13	FY26-27	97,421	54.01	1,255	0.10	20,952	8.44
Future14	FY27-28	98,677	54.52	1,255	0.10	22,207	8.94
Future15	F289-29	99,932	55.02	1,255	0.10	23,463	9.45
Future16	FY29-30	101,188	55.53	1,255	0.10	24,718	9.96
Future17	FY30-31	102,443	56.03	1,255	0.10	25,974	10.46

Water Plan-Based Projects

Figure W2 organizes infrastructure improvements into three general categories: water resources, water treatment, and wells/storage/distribution. Gilbert will acquire an additional 17.85 MGD of surface water rights, costing $2.11 per gallon of capacity. Expansion of Santan Vista water treatment plant will costs $82.8 million and increase treatment capacity by 12 MGD, which is $6.90 per gallon of capacity. As shown in Figure W2, wells, storage, and distribution projects over the next ten years total of $45.23 million. These projects will increase water capacity by 12 MGD, averaging $3.77 per gallon of capacity.

Figure W2– Water IIP

Water Resources

#	*Description*	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*	*Years6-10*	*Total Project*
WA052	Surface Water Rights (11,640 ac-ft per yr)	$8,488,000						$8,488,000
WA094	Water Rights Phase II (8,360 ac-ft per yr)				$29,252,000			$29,252,000
	Total	$8,488,000	$0	$0	$29,252,000	$0	$0	$37,740,000
							Gallons of Capacity per Day =>	17,850,000
							Cost per Gallon of Capacity =>	$2.11

Water Treatment

#	*Description*	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*	*Years6-10*	*Total Project*
WA070	Santan Vista Phase II (12mgd)			$2,213,000	$28,465,000	$52,130,000		$82,808,000
							Gallons of Capacity per Day =>	12,000,000
							Cost per Gallon of Capacity =>	$6.90

Wells, Storage, and Distribution

#	*Description*	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*	*Years6-10*	*Total Project*
WA027	Cooley Station Well (2 mgd) and reservior (2 mg)			$900,000			$10,540,000	$11,440,000
WA062	Germann & Val Vista Reservoir (2 mg)			$1,396,000	$10,958,000			$12,354,000
WA067	Zone 2 to 4 Interconnect					$791,000		$791,000
WA071	Ray and Recker Well (2 mgd)						$5,514,000	$5,514,000
WA079	Appleby and Val Vista Well (2 mgd)			$579,000	$4,880,000			$5,459,000
WA080	Recker and Ocotillo Well			$1,796,000				$1,796,000
WA081	Direct System Well (2 mgd)						$5,713,000	$5,713,000
WA088	Warner and Recker Well (2 mgd)			$220,000	$1,944,000			$2,164,000
	Total	$0	$0	$4,891,000	$17,782,000	$791,000	$21,767,000	$45,231,000
							Gallons of Capacity per Day =>	12,000,000
							Cost per Gallon of Capacity =>	$3.77

Proposed Water Development Fee

Figure W3 summarizes the capital cost factors for the water system development fee. The first three line items are for future improvements in the IIP, as discussed above. According to the Town's master plan, Gilbert supplies 570 average day gallons of water per day for an Equivalent Dwelling Unit (EDU). The additional fee amounts for larger meters are derived using capacity ratios from the American Water Works Association. For nonresidential development with larger meters the proposed water development fees are 13-19 percent less than current fees. For residential development, proposed fees are 18-19 percent higher for a single unit, and 87% higher for a dwelling unit in a residential structure with two or more units.

Figure W3– Water Development Fees

Input Variables

	Cost per Gallon of Average Day Capacity
Water Resources	$2.11
Water Treatment	$6.90
Water Supply, Storage, and Distribution	$3.77
Total Capital Cost per Gallon of Capacity	$12.78
IIP and Development Fee Preparation Cost per Meter =>	$2.35
Required Offset Credit per Meter =>	
Net Revenue Credit per Meter =>	
Average Day Gallons of Capacity per ERU =>	570
Average Persons per Housing Unit =>	2.78

Residential (per housing unit)

Type	*Persons per Housing Unit*	*Proposed Water Connection Fee*	*Current Fee (Development plus Resources)*	*$ Change*	*Percent Change*
Single Unit 0.75"	2.88	$7,546	$6,397	$1,149	18%
Single Unit 1"	2.88	$12,602	$10,600	$2,002	19%
2+ Units per Structure	1.98	$5,188	$2,767	$2,421	87%

Nonresidential (per meter)

*Meter Size (inches)**	*Capacity Ratio*	*Proposed Water Connection Fee*	*Current Fee (Development plus Resources)*	*$ Change*	*Percent Change*
0.75	1.00	$7,284	$6,937	$347	5%
1.00	1.67	$12,164	$12,199	($35)	0%
1.50	3.33	$24,256	$27,933	($3,677)	-13%
2.00	5.33	$38,824	$47,700	($8,876)	-19%

** Fees for meters larger than two inches will be based on annualized average day demand and the net capital cost per gallon of capacity.*

WASTEWATER FACILITIES

RS 9-463.05 (T)(7)(f) defines the facilities and assets which can be included in the Wastewater Facilities IIP:

> *"Wastewater facilities, including collection, interception, transportation, treatment and disposal of wastewater, and any appurtenances for those facilities."*

The Wastewater Facilities development fee includes cost recovery for components with surplus capacity and the growth-related cost of planned improvements.

Wastewater Service Area and Service Units

The Town has two wastewater service areas, with north Gilbert served by the Neely Water Reclamation Facility (WRF) and south Gilbert served by the Greenfield plant. Separate IIPs and fee schedules have been prepared for both service areas.

Projected Connections and Wastewater Flow

In Gilbert, water and sewer connections are approximately equal, so the same projection of utility connections was used for types of infrastructure. According to the latest socioeconomic projections from Maricopa Association of Governments (MAG June 2013), Gilbert's rate of population and job growth decreases after 2020, which reduces the annual increase in connections. Additional information on Gilbert's land use assumptions is available in Appendix C.

Figure WW1 – Sewer Connections and Average Day Gallons

Year		Utility Connections	Million Gallons Per Avg Day	Annual Increase Connections	Annual Increase MGD	Cumulative Increase Connections	Cumulative Increase MGD
Past3	FY10-11	71,814	12.91				
Past2	FY11-12	71,910	12.67				
Past1	FY12-13	72,042	12.14				
Base	FY13-14	76,470	13.48				
Future1	FY14-15	78,386	13.82	1,917	0.33	1,917	0.33
Future2	FY15-16	80,303	14.15	1,917	0.33	3,834	0.67
Future3	FY16-17	82,220	14.49	1,917	0.33	5,751	1.00
Future4	FY17-18	84,137	14.82	1,917	0.33	7,668	1.34
Future5	FY18-19	86,054	15.15	1,917	0.33	9,585	1.67
Future6	FY19-20	87,971	15.49	1,917	0.07	11,502	2.01
Future7	FY20-21	89,888	15.82	1,917	0.07	13,419	2.34
Future8	FY21-22	91,144	16.04	1,255	0.04	14,674	2.56
Future9	FY22-23	92,399	16.26	1,255	0.04	15,930	2.78
Future10	FY23-24	93,655	16.48	1,255	0.04	17,185	3.00
Future11	FY24-25	94,910	16.70	1,255	0.04	18,441	3.22
Future12	FY25-26	96,166	16.92	1,255	0.04	19,696	3.44
Future13	FY26-27	97,421	17.14	1,255	0.04	20,952	3.65
Future14	FY27-28	98,677	17.36	1,255	0.04	22,207	3.87
Future15	F289-29	99,932	17.57	1,255	0.04	23,463	4.09
Future16	FY29-30	101,188	17.79	1,255	0.04	24,718	4.31
Future17	FY30-31	102,443	18.01	1,255	0.04	25,974	4.53

Wastewater IIP

Neely WRF has sufficient capacity for projected development over the next ten years. As shown in Figure WW2 the latest expansion of the northern plant had a cost of $10.94 per gallon of capacity. The wastewater development fee for the Neely Service Area includes a cost recovery component for available capacity in the Neely plant.

Given the significant difference in the cost per gallon of capacity for the initial construction of Greenfield WRF verses the planned expansion, TischlerBise recommends combining the cost and capacity of both phases. As shown in the table below, the combined cost of treatment capacity at Greenfield is $12.49 per gallon of capacity.

Figure WW2 – Wastewater Treatment Cost

Neely WRF Expansion

Projected Cost	$27,349,000
Additional Capacity (avg day gallons)	2,500,000
Cost per Gallon of Capacity	$10.94

Greenfield WRF	*Initial Plant**	*Expansion*	*Combined*
Projected Cost	$169,400,000	$30,445,000	$199,845,000
Additional Capacity (avg day gallons)	8,000,000	8,000,000	16,000,000
Cost per Gallon of Capacity	$21.18	$3.81	$12.49

** Principal plus interest*

In the north service area, Gilbert will replace an existing lift station and force main, with the new facilities sized to accommodate the ultimate capacity of the Neely plant. The average daily wastewater flow to this plant is currently 8 MGD and the plant has capacity for 11 MGD. The 38% growth share for WW070 is based on the remaining capacity in the northern plant.

Gilbert currently averages 43 average day gallons of wastewater flow for every person and job. Assuming this average holds constant, the projected increase in Neely Service Area population and jobs should increase wastewater flow by approximately 0.9 MGD over the next ten years. The recovery well cost (WW089) was allocated to the ten-year increase in wastewater flow, yielding a cost of $0.99 per gallon of capacity.

Figure WW3– Wastewater IIP in Neely Service Area

Wastewater Collection System - Neely

#	*Description*	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*	*Years6-10*	*Total Project*
WW070	Candlewood Lift Station & Force Main (38% growth share)	$35,000		$251,000	$2,177,000			$2,463,000
								$0
	Total	$35,000	$0	$251,000	$2,177,000	$0	$0	$2,463,000
							Gallons of Capacity per Day =>	894,000
							Cost per Gallon of Capacity =>	$2.76

Reclaimed Water Reuse/Recharge - Neely

#	*Description*	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*	*Years6-10*	*Total Project*
WW089	Recovery Well						$887,000	$887,000
								$0
	Total	$0	$0	$0	$0	$0	$887,000	$887,000
							Gallons of Capacity per Day =>	894,000
							Cost per Gallon of Capacity =>	$0.99

Planned wastewater improvements in the south service area are shown in Figure WW4. In a similar manner, the ten-year increase in population and jobs should increase wastewater flow in the Greenfield Service Area by 2.2 MGD over the next ten years. The total cost of planned improvements allocated to the increase in wastewater flow, yields a cost of $5.91 per gallon of capacity.

Figure WW4– Wastewater IIP in Greenfield Service Area

Wastewater Treatment - Greenfield

#	*Description*	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*	*Years6-10*	*Total Project*
WW075	Greenfield Water Reclamation Plant Phase III			$1,219,000	$10,881,000	$18,345,000		$30,445,000
							Gallons of Capacity per Day =>	8,000,000
							Cost per Gallon of Capacity (without interest) =>	$3.80

Reclaimed Water Reuse/Recharge - Greenfield

#	*Description*	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*	*Years6-10*	*Total Project*
WW044	Valve Stations				$533,000			$533,000
WW072	Germann and Higley 18" Main				$648,000	$4,861,000		$5,509,000
WW077	South Recharge Site Phase II			$523,000	$132,000	$5,212,000		$5,867,000
WW078	Pump Station Expansion			$104,000	$700,000	$294,000		$1,098,000
								$0
	Total	$0	$0	$627,000	$2,013,000	$10,367,000	$0	$13,007,000
							Gallons of Capacity per Day =>	2,200,000
							Cost per Gallon of Capacity =>	$5.91

Wastewater Development Fees

Proposed development fees for wastewater facilities in the Neely Service Area are shown in Figure WW5. For nonresidential development, the fee is equal to the net capital cost per gallon of capacity multiplied by the EDU demand factor of 248 gallons of wastewater flow on an average day. The EDU demand factor is in the FY06-11 CIP description for the Neely Plant expansion. For meters larger than 0.75 inches, a capacity ratio converts the fee per EDU to a proportionate fee based on hydraulic capacity. For residential development, the fee decreases by 36% for a single residential unit and decreases by 26% for a dwelling unit located in a residential structure with two or more units. For nonresidential development, proposed sewer fees in the Neely Service Area decrease by 38%.

Figure WW5– Wastewater Development Fees – Neely Service Area

Neely Service Area	*Cost per Gallon of Average Day Capacity*
Cost Recovery for Wastewater Treatment	$10.94
Wastewater Collection System IIP	$2.76
Reclaimed Water Reuse/Recharge IIP	$0.99
Required Offset	
Net Capital Cost per Gallon of Capacity	$14.69
IIP and Development Fee Preparation Cost per Customer =>	$2.35
Average Day Gallons of Capacity per ERU =>	248
Average Persons per Housing Unit =>	2.78

Residential (per housing unit)

Type	*Persons per Housing Unit*	*Proposed Sewer Fee*	*Current Fee*	*$ Change*	*Percent Change*
Single Unit	2.88	$3,775	$5,866	($2,091)	-36%
2+ Units per Structure	1.98	$2,596	$3,527	($931)	-26%

Nonresidential (per meter)

*Meter Size (inches)**	*Capacity Ratio*	*Proposed Sewer Fee*	*Current Fee*	*$ Change*	*Percent Change*
0.75	1.00	$3,644	$5,866	($2,222)	-38%
1.00	1.67	$6,085	$9,777	($3,692)	-38%
1.50	3.33	$12,131	$19,553	($7,422)	-38%
2.00	5.33	$19,415	$31,285	($11,870)	-38%

** Fees for meters larger than two inches will be based on annualized average day demand and the net capital cost per gallon of capacity.*

Based on information in the projection description for WW075 in the Town's FY13-18 CIP, the EDU demand factor in the Greenfield Service Area is 232 average day gallons. In addition to the wastewater treatment cost of $12.49 per gallon of capacity, the Greenfield plant expansion will require bond financing. At 4% annual interest and a 20-year bond term, the cumulative interest cost for the Greenfield expansion is expected to be approximately $14.8 million. Allocating the cumulative interest cost to the 8 MGD expansion yields a cost of $1.85 per gallon of capacity.

As shown in Figure WW6, proposed wastewater development fees for the Greenfield Service Area decrease from 5-20 percent.

Figure WW6– Wastewater Development Fees in Greenfield Service Area

Greenfield Service Area	*Cost per Gallon of Average Day Capacity*
Wastewater Collection System	$0.00
Wastewater Treatment Capital	$12.49
Interest Cost on Treatment Plant Expansion	$1.85
Reclaimed Water Reuse/Recharge	$5.91
Required Offset	
Net Capital Cost per Gallon of Capacity	$20.25
IIP and Development Fee Preparation Cost per Customer =>	$2.35
Average Day Gallons of Capacity per ERU =>	232
Average Persons per Housing Unit =>	2.78

Residential (per housing unit)

Type	*Persons per Housing Unit*	*Greenfield Sewer Connection Fee*	*Current Fee*	*$ Change*	*Percent Change*
Single Unit	2.88	$4,869	$5,866	($997)	-17%
2+ Units per Structure	1.98	$3,348	$3,527	($179)	-5%

Nonresidential (per meter)

*Meter Size (inches)**	*Capacity Ratio*	*Greenfield Sewer Connection Fee*	*Current Fee*	*$ Change*	*Percent Change*
0.75	1.00	$4,700	$5,866	($1,166)	-20%
1.00	1.67	$7,849	$9,777	($1,928)	-20%
1.50	3.33	$15,648	$19,553	($3,905)	-20%
2.00	5.33	$25,045	$31,285	($6,240)	-20%

** Fees for meters larger than two inches will be based on annualized average day demand and the net capital cost per gallon of capacity.*

APPENDIX A – REVENUE STRATEGY AND REQUIRED OFFSET ANALYSIS

9-463.05.E.7. "A forecast of revenues generated by new service units other than development fees, which shall include estimated state-shared revenue, highway users revenue, federal revenue, ad valorem property taxes, construction contracting or similar excise taxes and the capital recovery portion of utility fees attributable to development based on the approved land use assumptions, and a plan to include these contributions in determining the extent of the burden imposed by the development as required in subsection B, paragraph 12 of this section."

9-463.05.B.12. "The municipality shall forecast the contribution to be made in the future in cash or by taxes, fees, assessments or other sources of revenue derived from the property owner towards the capital costs of the necessary public service covered by the development fee and shall include these contributions in determining the extent of the burden imposed by the development. Beginning August 1, 2014, for purposes of calculating the required offset to development fees pursuant to this subsection, if a municipality imposes a construction contracting or similar excise tax rate in excess of the percentage amount of the transaction privilege tax rate imposed on the majority of other transaction privilege tax classifications, the entire excess portion of the construction contracting or similar excise tax shall be treated as a contribution to the capital costs of necessary public services provided to development for which development fees are assessed, unless the excess portion was already taken into account for such purpose pursuant to this subsection."

Figure A1 – Revenue Projections

TO BE PROVIDED

APPENDIX B – COST OF PROFESSIONAL SERVICES

As stated in Arizona's development fee enabling legislation, "a municipality may assess development fees to offset costs to the municipality associated with providing necessary public services to a development, including the costs of infrastructure, improvements, real property, engineering and architectural services, financing and professional services required for the preparation or revision of a development fee pursuant to this section, including the relevant portion of the infrastructure improvements plan" (see 9-463.05.A). Because development fees must be updated at least every five years, the cost of professional services is allocated to the projected increase in service units, or utility connections, over five years. Qualified professionals must develop the IIP, using generally accepted engineering and planning practices. A qualified professional is defined as "a professional engineer, surveyor, financial analyst or planner providing services within the scope of the person's license, education or experience".

Figure B1 – Cost of Professional Services

Necessary Public Service	*Cost*	*Demand Indicator*	*Proportionate Share*	*Allocation Unit*	*Five-Year Service Unit Increase*	*Cost per Unit*
Water and Sewer	$45,216	All Development	100%	Water plus Sewer Connections	19,168	$2.35
Traffic Signals	$21,352	All Development	100%	PM Peak Vehicle Trips Ends	18,037	$1.18
Parks and Recreation	$17,584	Residential	100%	Population	23,341	$0.75
Police	$12,560	Residential	83%	Population	23,341	$0.44
		Nonresidential	17%	Nonresidential PM-Peak Vehicle Trips Ends	10,468	$0.20
Fire	$15,072	Residential	62%	Population	23,341	$0.40
		Nonresidential	38%	Jobs	16,786	$0.34
General Government	$13,816	Residential	83%	Population	23,341	$0.49
		Nonresidential	17%	Jobs	16,786	$0.13
	$125,600	Total IIP and Development Fee Study				

APPENDIX C – LAND USE ASSUMPTIONS

TischlerBise prepared current demographic ***estimates*** and future development ***projections*** for both residential and nonresidential development that will be used in the Infrastructure Improvement Plan (IIP) and calculation of the development fees. Demographic data estimates for FY13-14 (beginning July 1, 2013) are used in calculating levels-of-service (LOS) provided to existing development in the Town of Gilbert.

Introduction

Arizona Revised Statutes (ARS) 9-463.05 (T)(6) requires the preparation of a *Land Use Assumptions* document which shows:

> *"projections of changes in land uses, densities, intensities and population for a specified service area over a period of at least ten years and pursuant to the General Plan of the municipality."*

Although long-range projections are necessary for planning capital improvements, a shorter time frame of five to ten years is critical for the impact fees analysis. Arizona's Development Fee Act requires fees to be updated at least every five years and limits the IIP to a maximum of ten years. Therefore, the use of a very long-range "build-out" analysis is no longer acceptable for deriving development fees in Arizona municipalities.

Growth Indicators

Development projections and growth rates are summarized in Figure C1. These projections will be used to estimate development fee revenue and to indicate the anticipated need for growth-related infrastructure. However, impact fees methodologies are designed to reduce sensitivity to accurate development projections in the determination of the proportionate-share fee amounts. If actual development is slower than projected, impact fees revenues will also decline, but so will the need for growth-related infrastructure. In contrast, if development is faster than anticipated, the Town will receive an increase in impact fee revenue, but will also need to accelerate the capital improvements program to keep pace with development.

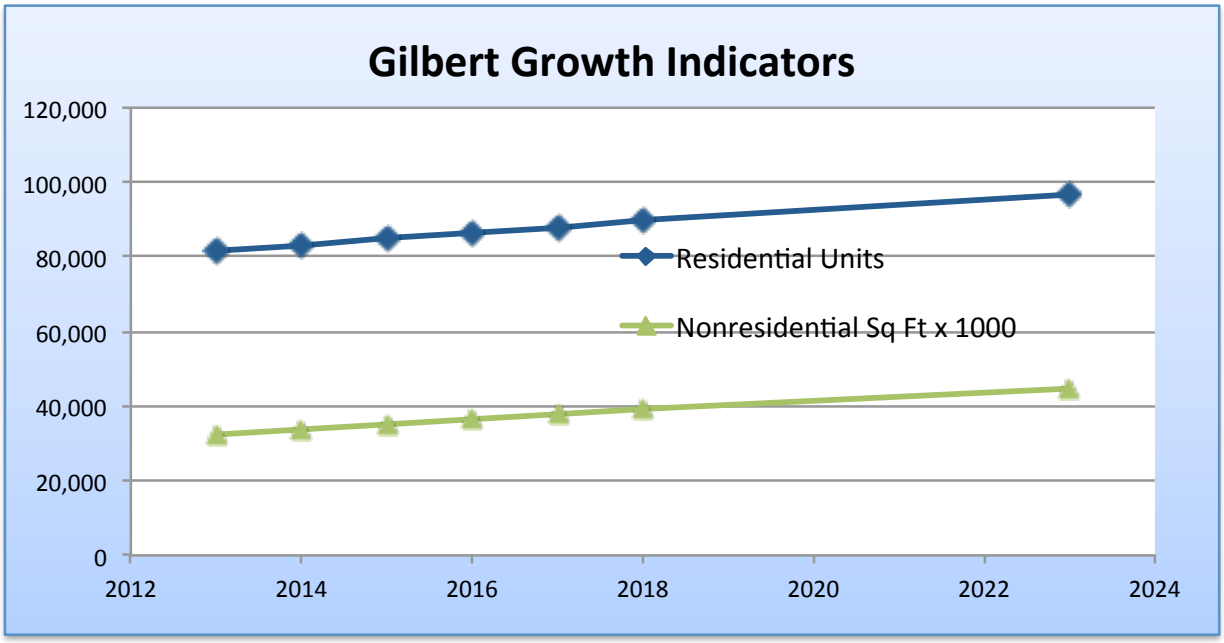
Over the next five years, the development fee study assumes an average increase of 1,679 housing units per year in the Gilbert Municipal Planning Area (MPA), which equates to a linear annual growth rate 2.1%. In comparison, building permit records over the past five years indicate the Town of Gilbert increased by an average of 1,500 dwelling units per year.

Over the next five years, the development fee study assumes an average increase of approximately 1.4 million square feet of nonresidential floor area per year in the Gilbert MPA, which equates to a linear annual growth rate 4.4%. In comparison, building permit records over the past five years indicate the Town of Gilbert averaged increases of almost 2.6 million square feet of nonresidential development per year.

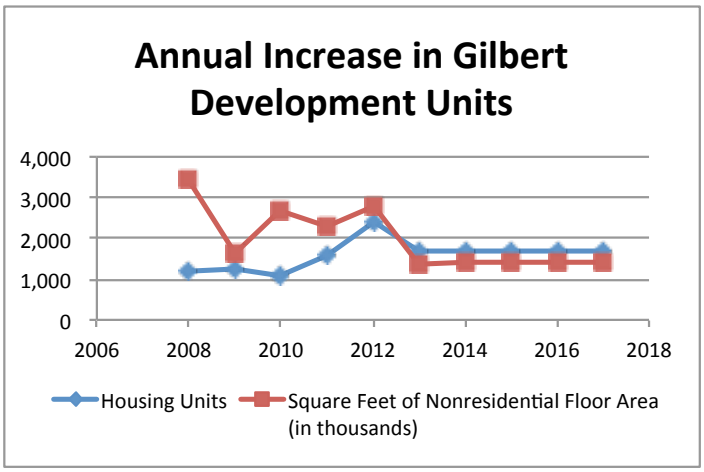
Figure C1 – Development Projections and Growth Rates

Gilbert, Arizona

	Year							2013 to 2018 Average Annual	
	2013	*2014*	*2015*	*2016*	*2017*	*2018*	*2023*	*Increase*	*Linear Growth Rate*
Residential Units	81,437	83,116	84,794	86,474	88,152	89,832	96,860	1,679	2.1%
Nonresidential Sq Ft x 1000	32,070	33,440	34,840	36,240	37,670	39,110	44,890	1,408	4.4%



Gilbert, AZ		Annual Increase	
		Housing Units	Square Feet of Nonresidential Floor Area (in thousands)
Calendar Year	2008	1,176	3,451
Calendar Year	2009	1,278	1,646
Calendar Year	2010	1,060	2,684
Calendar Year	2011	1,575	2,307
Calendar Year	2012	2,411	2,807
FY13-14	2013	1,679	1,370
FY14-15	2014	1,678	1,400
FY15-16	2015	1,680	1,400
FY16-17	2016	1,678	1,430
FY17-18	2017	1,680	1,440
Avg Past Five Years =>		1,500	2,579
Avg Future Five Years =>		1,679	1,408



Residential Development

Current estimates and future projections of residential development are detailed in this section, including population and housing units by type.

Recent Residential Construction

Since 2000, Gilbert has increased by an average of 3,790 housing units per year. Figure C2 indicates the estimated number of housing units added by decade in Gilbert. Consistent with the nationwide decline in development activity, residential construction in the Town has slowed significantly since 2008. Even with the recent drop in housing starts, Gilbert added more units during the past decade than any previous decade. In comparison to the past decade, the projected increase from 2010 to 2020 is 16,789 dwelling units in the Gilbert MPA (note: the Municipal Planning Area includes incorporated and unincorporated land, as shown in Figure C10).

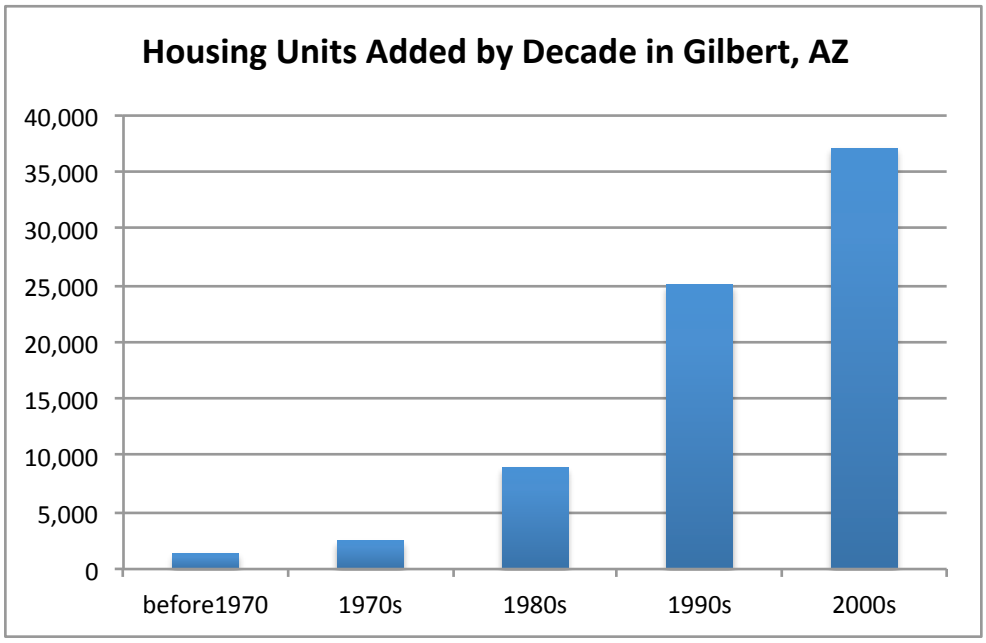
Figure C2 – Housing Units by Decade

Gilbert, Arizona

Census 2010 Population*	208,453
Census 2010 Housing Units*	74,907
Total Housing Units in 2000	37,007
New Housing Units	37,900

From 2000 to 2010, Gilbert added an average of 3,790 housing units per year.

* *U.S. Census Bureau SF1.*



Source for 1990s and earlier is Table B25034, American Community Survey, 2010.

Population Forecast

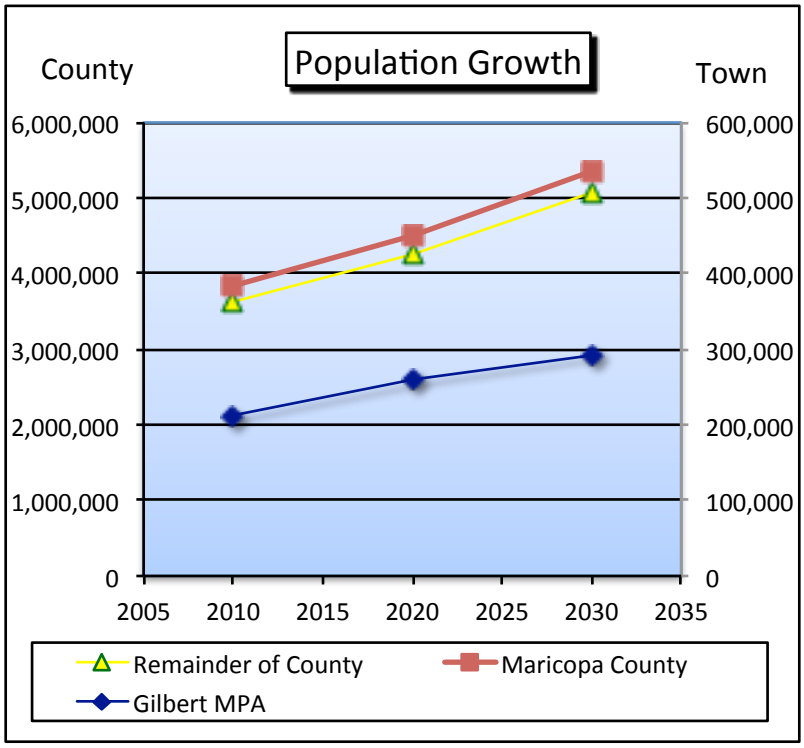
To provide context for population and job growth in Gilbert, TischlerBise prepared comparisons to Maricopa County projections. Figure C3 indicates the Town of Gilbert expects to gain population share from 2010 to 2020, but then decrease population share from 2020 to 2030. Total population for

Maricopa County and Gilbert's Municipal Planning Area (MPA) are from Maricopa Association of Governments (MAG) socioeconomic projections by Traffic Analysis Zone (TAZ), approved in June 2013. Total population includes group quarters, in contrast to resident population that excludes group quarters.

Figure C3 – Gilbert Population Share

	2010	2020	2030
Maricopa County	3,823,900	4,507,300	5,359,400
Gilbert MPA	212,400	259,100	293,100
Remainder of County	3,611,500	4,248,200	5,066,300
Town Share	5.6%	5.7%	5.5%

Source: Municipal Planning Area projections from Maricopa Association of Governments, June 2013.



Persons per Housing Unit

The 2010 census did not obtain detailed information using a "long-form" questionnaire. Instead, the U.S. Census Bureau has switched to a continuous monthly mailing of surveys, known as the American Community Survey (ACS), which has limitations due to sample-size constraints. For example, data on detached housing units are now combined with attached single units (commonly known as townhouses). For development fees in Gilbert, "single-unit" residential includes detached units (both stick-built and manufactured) and townhouses that share a common sidewall but are constructed on an individual parcel of land. The second residential category includes all structures with two or more units on an individual parcel of land.

According to the U.S. Census Bureau, a household is a housing unit that is occupied by year-round residents. Impact fees often use per capita standards and persons per housing unit or persons per household to derive proportionate-share fee amounts. When persons per housing unit are used in the fee calculations, infrastructure standards are derived using year-round population. When persons per household are used in the fee calculations, the impact fee methodology assumes all housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards.

TischlerBise recommends that impact fees for residential development in the Town of Gilbert be imposed according to the number of year-round residents per housing unit. As shown in Figure C4, 2010 census counts indicate Gilbert had 74,907 housing units, with an average of 2.78 persons per housing unit. The land use assumptions hold this average constant over the next ten years.

Figure C4 – Year-Round Persons per Unit by Type of Housing

2011 Summary by Type of Housing from American Community Survey

Units in Structure	*Renter & Owner*				
	Persons	*House-holds*	*Persons per Household*	*Housing Units*	***Persons per Housing Unit***
Single Unit*	194,481	61,027	3.19	64,079	3.04
2+ Units	17,081	7,649	2.23	8,200	2.08
Subtotal	211,562	68,676	3.08	72,279	2.93
Group Quarters	402				
TOTAL	211,964				2.93

Source: Tables B25024, C25032, C25033, and B26001.

One-Year Estimates, 2011 American Community Survey, U.S. Census Bureau.

2010 Census

Units in Structure	*Renter & Owner*				
	Persons	*House-holds*	*Persons per Household*	*Housing Units*	***Persons per Housing Unit***
Single Unit*	191,344	61,645	3.10	66,409	2.88
2+ Units	16,805	7,727	2.17	8,498	1.98
Subtotal	208,149	69,372	3.00	74,907	2.78
Group Quarters	304				
TOTAL	208,453				2.78

** Single unit includes detached, attached, and mobile homes.*

Source: Totals from Summary File 1, U.S. Census Bureau.

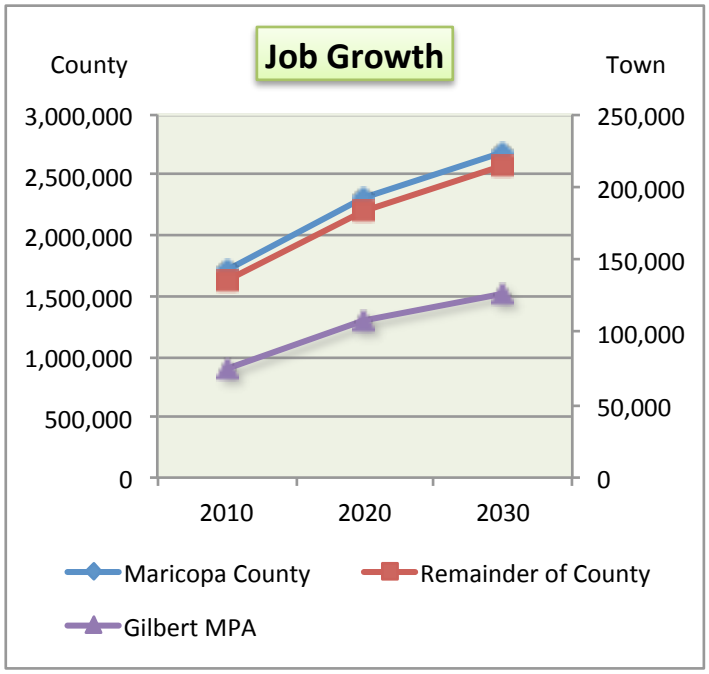
Nonresidential Development

In addition to data on residential development, the infrastructure improvement plan and development fees require data on nonresidential development in Gilbert. Current estimates and future projections of nonresidential development are detailed in this section, including jobs and floor area by three types of nonresidential development. TischlerBise uses the term "jobs" to refer to employment by place of work. Similar to the population share evaluation discussed above, countywide jobs are shown in Figure C5 along with the job share for Gilbert's municipal planning area. Gilbert increases job share from 2010 to 2020, then maintains a constant share through 2030.

Figure C5 – Gilbert Job Share

	2010	***2020***	***2030***
Maricopa County	1,706,300	2,312,900	2,696,900
Gilbert MPA	74,600	108,100	126,700
Remainder of County	1,631,700	2,204,800	2,570,200
Town Share	4.4%	4.7%	4.7%

Source: Municipal Planning Area projections from Maricopa Association of Governments, June 2013.



Jobs by Type of Nonresidential Development

Figure C6 indicates the Town's 2012 job and floor area estimates, according to three general types of nonresidential development. TischlerBise divided floor area by jobs to produce the average square feet per job multipliers for both industrial and commercial development. For Office & Other services, TischlerBise assumed 301 square feet per job, which is the national average for a general office building, according to data published by the Institute of Transportation Engineers (see Trip Generation, 2012). Over the next ten years, TischlerBise assumed Gilbert annually increases to an average of 340 square feet per job, which is the national average for hospitals (ITE, Trip Generation 2012).

Figure C6 – Jobs and Floor Area Estimates

	2012 Jobs (1)	*Sq Ft per Job (5)*	*Square Feet of Floor Area (2)*	*Jobs per 1000 Sq Ft*
Industrial	13,593	602	8,181,069	1.66
Commercial (3)	25,939	384	9,961,926	2.60
Office & Other Services (4)	41,741	301	12,564,041	3.32
TOTAL	81,272	378	30,707,036	2.65

(1) Gilbert MPA, MAG socioeconomic data by TAZ, June 2013.
(2) Gilbert Office of Economic Development 10/29/12.
(3) Retail, Food and Accommodation Services.
(4) Major sectors are Health Care, Administration & Support, Professional/Scientific/Technical Services, Education and Public Administration.
(5) Industrial and Commercial derived from Gilbert data. Office & Other Services is the national average for office, based on data published by the Institute of Transportation Engineers (Trip Generation, 2012).

Summary of Land Use Assumptions

Demographic data shown in Figures C7 and C8 provide key inputs for updating development fees in Gilbert. The municipal planning area is currently larger than the Town, but the difference will decrease over time as Gilbert continues to annex additional land area. Starting with 2010, 2020, and 2030 total population data from MAG, TischlerBise derived interim-year data using linear growth formulas. Next, TischlerBise derived dwelling units by area assuming an average of 2.78 persons per housing unit.

Figure C7 – MPA Residential Development

Gilbert Municipal Planning Area	*FY13-14* *2013* *Base Yr*	*FY14-15* *2014* *1*	*FY15-16* *2015* *2*	*FY16-17* *2016* *3*	*FY17-18* *2017* *4*	*FY18-19* *2018* *5*	*FY20-21* *2020* *7*	*FY23-24* *2023* *10*
Total Population by Area								
Neely	128,942	129,897	130,852	131,807	132,762	133,716	135,626	138,380
Greenfield	97,493	101,207	104,920	108,633	112,347	116,060	123,487	130,941
Total MPA Pop (Yr-Rd)	226,436	231,104	235,772	240,440	245,108	249,777	259,113	269,321
Dwelling Units by Area								
Neely	46,374	46,717	47,060	47,404	47,747	48,091	48,777	49,768
Greenfield	35,063	36,399	37,734	39,070	40,405	41,741	44,412	47,092
Total MPA Dwelling Units	81,437	83,116	84,794	86,474	88,152	89,832	93,189	96,860
Persons per Housing Unit	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78

Figure C8 provides base year data and a ten-year forecast of both jobs and nonresidential floor for the entire planning area. Based on the latest MAG employment forecast (June 2013), Gilbert expects to become more of an employment center with jobs increasing faster than housing units. In 2013, there were 1.04 jobs for every housing unit in the Gilbert MPA. By 2023, the ratio increases to 1.17 jobs per housing unit in the Gilbert MPA. Construction, non-site based employment, and work-at-home jobs were excluded to more accurately indicate the increase in nonresidential floor area.

Figure C8 – MPA Nonresidential Development

Gilbert Municipal Planning Area	*FY13-14* *2013* *Base Yr*	*FY14-15* *2014* *1*	*FY15-16* *2015* *2*	*FY16-17* *2016* *3*	*FY17-18* *2017* *4*	*FY18-19* *2018* *5*	*FY20-21* *2020* *7*	*FY23-24* *2023* *10*
Jobs (by place of work)								
Total MPA Jobs - Industrial	14,010	14,427	14,845	15,262	15,679	16,096	16,931	18,021
Total MPA Jobs - Commercial	26,798	27,657	28,516	29,374	30,233	31,092	32,810	34,441
Total MPA Jobs - Office/Other	43,822	45,903	47,984	50,065	52,146	54,227	58,389	61,229
Total MPA Jobs	84,630	87,987	91,344	94,701	98,058	101,416	108,130	113,691
Jobs to Housing Ratio	1.04	1.06	1.08	1.10	1.11	1.13	1.16	1.17
MPA Total Nonresidential Floor Area (square feet in thousands)								
Industrial KSF	8,440	8,680	8,940	9,180	9,440	9,690	10,190	10,840
Commercial KSF	10,290	10,620	10,950	11,280	11,610	11,940	12,600	13,230
Office & Other KSF	13,340	14,140	14,950	15,780	16,620	17,480	19,240	20,820
Total MPA KSF	32,070	33,440	34,840	36,240	37,670	39,110	42,030	44,890
Avg Sq Ft Per Job	379	380	381	383	384	386	389	395

Figure C9 provides additional detail on the annual increases in demand indicators (change from July 1st to July 1st of the next year). Single-unit housing tends to be the most consistent type of development

from year to year. In contrast, apartments and all nonresidential development vary significantly over time. The Town of Gilbert will closely monitor actual development each year. If needed, development fees can be updated prior to the required five-year cycle.

Figure C9 – Projected Annual Increases for the Gilbert MPA

Annual Increase	7/13-7/14	7/14-7/15	7/15-7/16	7/16-7/17	7/17-7/18	7/18-7/19	7/20-7/21	***2013-2023 Avg Anl***
Total Population	4,668	4,668	4,668	4,668	4,668	4,668	3,403	4,289
Housing Units	1,679	1,678	1,680	1,678	1,680	1,678	1,224	1,542
Jobs	3,357	3,357	3,357	3,357	3,357	3,357	1,854	2,906
Industrial KSF	240	260	240	260	250	250	220	240
Commercial KSF	330	330	330	330	330	330	210	294
Office & Other KSF	800	810	830	840	860	870	520	748
Total Nonres KSF/Yr =>	1,370	1,400	1,400	1,430	1,440	1,450	950	1,282

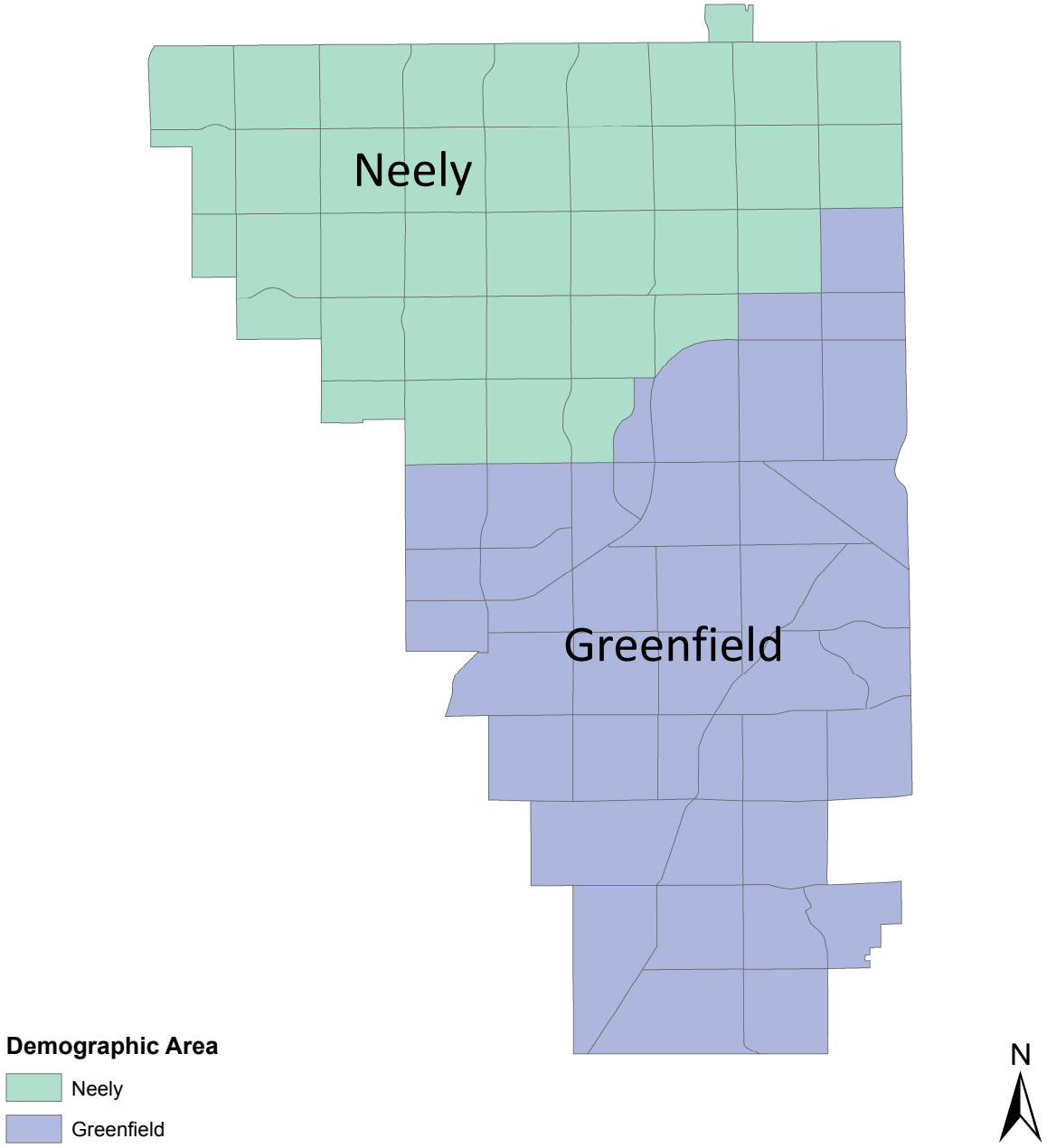
Service Areas

Land use assumptions for residential and nonresidential development have been prepared for two geographic areas. ARS 9-463.05(T)(9) defines "service area" as follows:

> *"any specified area within the boundaries of a municipality in which development will be served by necessary public services or facility expansions and within which a substantial nexus exists between the necessary public services or facility expansions and the development being served as prescribed in the infrastructure improvements plan. "*

For all types of infrastructure except wastewater, Gilbert provides town-wide service. Urban development within Gilbert's Municipal Planning Area (MPA) will require municipal water and sewer service, along with annexation. Over time, the incorporated area will increase and eventually match the MPA boundary. For wastewater, the Neely Service Area is defined as the portion of the Town served by the Neely Water Reclamation Plant (WRP) and the Greenfield Service Area is defined as the portion of the Town served by the Greenfield Water Reclamation Plant (WRP). The approximate boundaries of the service areas are shown in the map below, using traffic analysis zones as the geographic "building-blocks" for the land use assumptions. The rationale for determining the service area for each type of infrastructure will be discussed and analyzed in the Infrastructure Improvements Plan (IIP).

Figure C10 - Map of Gilbert Demographic Areas

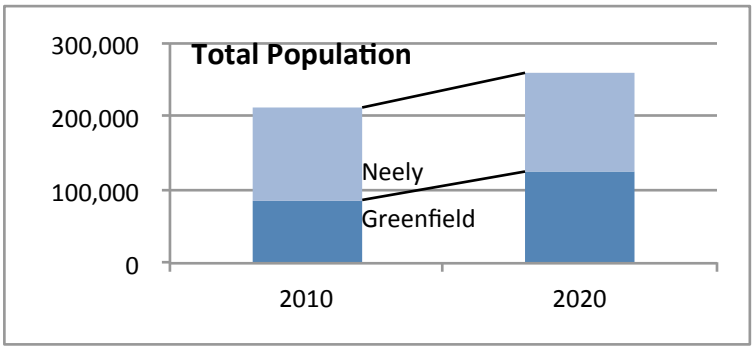


Key residential data by demographic area are summarized in Figure C11. Neely has a larger existing base of population and housing units, but is approaching build out. In contrast, most of the projected increase in development will occur in the Greenfield service area.

Figure C11 – Population and Housing by Demographic Area

Total Population

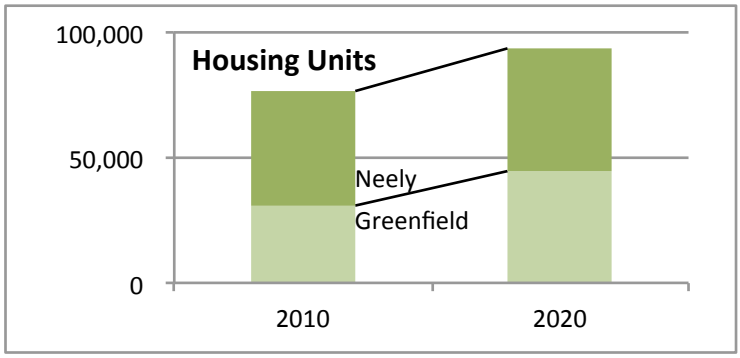
	2010	*2020*	*Increase*
Neely	126,078	135,626	9,548
Greenfield	86,353	123,487	37,134
Townwide	212,431	259,113	46,682



Source: Gilbert MPA, MAG socioeconomic data by TAZ, June 2013.

Housing Units

	2010	*2020*	*Increase*
Neely	45,522	48,777	3,255
Greenfield	30,878	44,412	13,534
Townwide	76,400	93,189	16,789



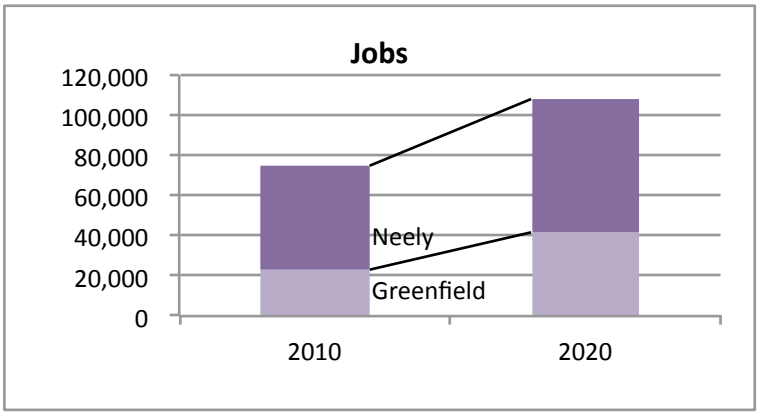
Source: TischlerBise derived housing units from projected population, assuming the 2010 census ratio of 2.78 persons per housing unit remains constant.

Key nonresidential data by demographic area are summarized in Figure C12. Neely has a larger existing base of nonresidential floor area and jobs but the projected increase in nonresidential development is similar in both demographic areas.

Figure C12 – Jobs and Nonresidential Floor Area by Demographic Area

Jobs

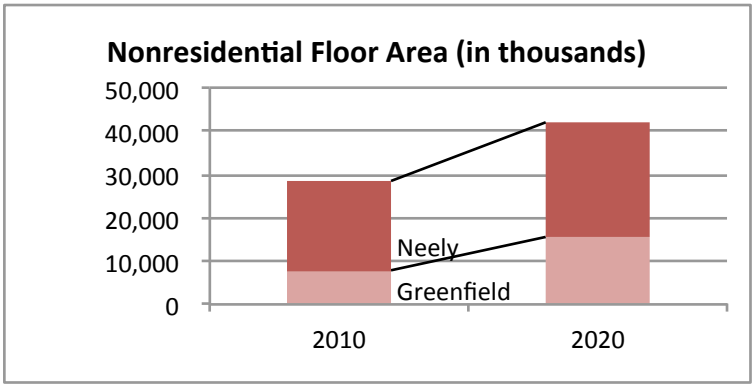
	2010	*2020*	*Increase*
Neely	51,596	65,781	14,185
Greenfield	22,962	42,349	19,387
Townwide	74,558	108,130	33,572



Source: Gilbert MPA, MAG socioeconomic data by TAZ, June 2013.

Square Feet of Floor Area (in thousands)

	2010	*2020*	*Increase*
Neely	20,400	26,540	6,140
Greenfield	7,890	15,490	7,600
Townwide	28,290	42,030	13,740



Source: Derived by TischlerBise using square feet per job multipliers by type of nonresidential development.